JULES BLOCH

DOCTEUR ÈS LETTRES
DIRECTOR OF STUDIES, ÉCOLE DES HAUTES ÉTUDES
PROFESSOR, ÉCOLES DES LANGUES ORIENTALES VIVANTES

INDO-ARYAN

FROM THE VEDAS TO MODERN TIMES

English edition

Largely revised by the author and translated

BY

ALFRED MASTER

C.I.E., D. PHIL.,

PREFACE

When I was paying a visit to Professor Jules Bloch in the summer of 1946 at Sèvres, I suggested to him that an English translation of L'Indo-aryen was overdue and he asked me if I would be willing to do the work. I agreed and began it almost immediately. Sir Ralph Turner (then Professor Turner) generously undertook to read my draft and to advise me on any point that seemed to deserve comment before submission to Professor Bloch for final approval.

By the end of 1950, five-sixths of the translation was completed. My time at the School of Oriental and African Studies was then up and I joined the Indian Office Library as Assistant Keeper. The Library was only just recovering from the disorganization caused by the war and there was still much work to be done before any department could be restored to a satisfactory footing. I found myself unable to continue the translation. I left the India Office Library at the end of 1957 and then decided to write a thesis for the degree of Doctor of Philosophy, which I took in 1962. I then returned to the translation, which is now completed.

Professor Bloch had intended that the translation should, in principle, preserve the date of the original work, but, as time passed, it became clear that it was rapidly becoming a second edition. Seven printed pages of corrigenda contributed by eight well-known scholars had been first incorporated. The procedure then was to send the resulting translation in batches, first to Sir Ralph Turner, who returned them with his notes. These were then sent to Professor Bloch, who made notes accepting, rejecting or modifying the revised translation. Points of doubt were left to my discretion. In 1953 Professor Bloch died. The universal esteem and affection in which he was held, are illustrated by an extract from a letter to him from the late Professor F. W. Thomas, dated May 31, 1934. " Your l'Indo-Aryen, which I am gradually absorbing... is a perfect boon to me at present, when amid the rush of this climatic period in our University town I can read nothing else. Your sure touch and fine observation and your moderation and hold on reality give to the

details a satisfying character which renders the perusal even in small snatches remunerative. One has a sense of acquisition, and a feeling that the remaining pages contain many agreeable revelations. When the term is over, I shall indulge my appetite with less restraint and then I will write again to report my progress as your disciple and to present any śaṅkās. for your kind elucidation ".

The translation of the remaining 72 pages never passed beneath the author's eye. But this loss was partly remedied by Mme Bloch, who put into my hands the author's interleaved copy with copious notes and Sir Ralph Turner continued to give me his generous and valuable advice. The results, I hope, are such as Professor Bloch would have wished.

I have followed the original make-up as closely as is consistent with English practice. The "Indications bibliographiques" have been rearranged in alphabetical order under the language headings and the Table of Abbreviations has been enlarged. A short Index, which I originally prepared for my own use, has been added.

A word must be said concerning orthographies. Sanskrit and Prakrit words have the generally recognised transliteration but in Apabhraṃśa words the tilde ~ is sometimes used for anusvāra; this, if blurred, may be mistaken for a macron and lead to wrong conclusions. It makes for an awkward type, when used with the macron (or micron). The alternative ṃ is too solid for many eyes, but has typographical advantages and is less misleading than the tilde, when used to represent a class nasal. As for the vernaculars, it is customary to use a broad phonetic transcription not very different from the strict transliteration of the traditional script, but having the disadvantage of representing prosodies not recognised in writing by the general body of speakers of the particular language. The comparative philologist has to choose between two systems, if he is concerned about avoiding inconsistency. This is tantamount to editing his sources, often a dangerous practice. Professor Bloch's "hold on reality" causes him to ignore such inconsistencies, so long as they do not affect his demonstration. In some cases he is hesitant, when he makes his own transliteration from an Indian script. Thus on page 263 occur the spellings asata, tinhi, ḍalmalīta, usalat^a, marte. Strictly transliterated they are asata, tinhī, ḍalamaḷita, usaḷata, marate. In the former group a is represented by a, superscript a and zero. Tinhī, however, does not represent tinahī. I have changed the spellings accordingly, and I am confident that Professor Bloch would have given his approval.

For Sindhī he follows Grierson, who follows Trumpp in the use of superscript letters as in cor^u, rāt^i, Accordingly, on p. 280, bottom

line I have corrected katab *to* katab^u, *although the spelling of the Nepali Dictionary* katabu *is preferable, as in the case also of* coru, rāti. *Further, the French text is inclined to use* z *for* j *before back vowels in modern Marathi. But this pronunciation may have existed also in old Marathi and its exclusive use for this dialect implies a judgement which is not in fact made. The transliteration has therefore been regularised.*

It is fitting to mention here Professor Bloch's tribute to his old teacher Professor Meillet, who read a great part of the original proofs, which has been deleted from the last page of the text as being admittedly out of place.

My own thanks are due in full measure to the firm of Adrien-Maisonneuve, the publishers of the original edition, for their enterprise in publishing this translation also.

I have already mentioned the invaluable advice given by Sir Ralph Turner during the progress of the translation and, indeed, afterwards, for which I am in his lasting debt. I must not forget Madame Colette Caillat, who has cheerfully helped to clear up certain points connected with publication, which could best be settled in Paris.

*Then lastly " *j'offre mes hommages* " to Madame Yvonne Bloch, who has shown a keen and unfailing interest in this last memorial of her husband's work.*

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p. 25   Journals:

BSL   Bulletin de la Société de Linguistique de Paris.
BSOS   Bulletin of the School of Oriental (now 'and African') Studies.
EFEO   Bulletin de l'École Française de l'Extrême-Orient.
IF   Indogermanische Forschungen.
IHQ   Indian Historical Quarterly.
JASB   Journal of the Asiatic Society of Bengal.
J.As. Journal Asiatique.
JGLS   Journal of the Gypsy Lore Society.
JRAS   Journal of the Royal Asiatic Society.
KZ   Zeitschrift für vergleichende Sprachforschung.
MSL   Mémoires de la Société de Linguistique de Paris.

ABBREVIATIONS AND ORTHOGRAPHIES

(For abbreviations of names of Sanskrit, Pali and well-known Prakrit works see standard lexica and grammars)

Afghan =Pashto, Paš (χ)tu.
AMg.Amg.   Ardhamāgadhī.
Apa.   Apabhraṃśa.
Ar.   Arabic.
Arm.   Armenian.
As.   Asokan, Aśoka.
Ashk. Ašk. Ashkun, Aškun
            (Kaf.).
Ass.   Assamese, Aχamīyā.
Av.   Avestan.
Aw.   Awadhī (E. Hindi).
Bairāṭ   (As.) =Bhābrū.
Bal.   Balochi, Baloćī.
Barābar   (As.).
Bashgali   = Katī.
Beng.   Baṇgālī, Bāṇlā.
Bhabra   Bhābrū = Bairāṭ.
Bhav.   see Bibl. Notes, Jacobi.
Bhojpurī   (Bih. d.).
Bih(ārī).
Br(aj Bhākhā).
Brokpā   (Shi. d.).
Bundelī   (Hin. d.).
Chat(tīsgaṛhī)   (E. Hin.).
Chil(asi)   Čilāsī (Ṣīṇā d.).
Chitr(ali) Čitrālī = Khowar.
d.   dialect.
Dam(elī)   S. Chitr.
Dh., Dha.   Dhaulī (As.).
Drav(idian).

Dutr., D.   de Rhins see Bibl.
            Notes, Senart.
E.   eastern.
Ep.   Epic.
Eur(opean).
Garw.   Gārwī (Dard).
Gath., Ga. Gāthā of the
            Avesta.
Gawb., GB   Gawar bati (S.
            Chitr.).
Gir., G.   Girnār (As.).
Gk.   Greek.
Guj(arātī) also G.
Hin., H.   Hindī, Hindostānī.
IA   Indo-aryan.
IE   Indo-european.
Indo-ir(anian).
Iran(ian).
Jaunsārī   (W. Pahāṛī).
K(ālsī)   (As.).
Kaf.   Kāfirī.
Kal.   Kalasha, Kalāšā (Kaf.)
            also for Kālsī.
Kan(naḍa).
Kan(aujī)   (Hin.).
Kash., Kś. Kashmiri, Kāšmīrī
            (Dard).
Katī   (Kaf.).
Khow(ar)   Khovār = Čitrālī.
Kon., Konk. Koṅkaṇī.

Kum(aunī) (Pahāṛī).
Lahn., Lah. (Lahndā Panj.).
Lakhim(purī) (Aw. d.).
Lat(in).
Lith(uanian).
Mah(ārāṣṭrī).
Maiyām̐ (Shi. d.).
Maith(ili) (Bih. d.).
Malw., Mal. Mālwī (Raj.).
Mans. Mānsehrā (As.).
Mar., M. Marāṭhī.
Marw., Mrw. Mārwāṛī (Raj.).
Mew(āti) (Raj.).
Mg. Māgadhī.
M(iddle) I(ndian).
Mvu Mahāvastu.
ND see Bibl. Notes, Tur-
    ner.
Nep(ālī).
Niya see Bibl. Notes, T.
    Burrow.
Nurī (Rom. d.).
O. old.
O.H.G. Old High German.
Or(iyā) = Oṛiyā.
OWR Old Western Rājās-
    thānī.
Pa. Pālī.
Panj., Pj. Pañjābī.

Pash., Paš. Pashai, Pašai
    (Kaf.).
Pashtu = Afghānī.
Pers(ian).
Pkt. Prākṛta.
Pras(un) (Kaf.).
Ptol(emy).
Raj. Rājāsthānī.
Rāmgaṛh (As.).
Rom(any) Romanī.
Sadd(anīti) see Bibl. Notes,
    H. Smith.
Saur. Śaurasenī.
Shah., Sh. Shāhbāzgaṛhī (As.).
Shi., Sh. Shina, Ṣīṇā (Dard).
Sid(dāpura) (As.).
Sind., Sdh. Sindhī.
Singh., Sgh. Singhalese.
Skt. Saṃskṛta.
Slav(onic).
Sop(ārā) (As.).
Tam(il) Tamil.
Tel(ugu), Te.
Tir(āhī) (Kaf.).
Tor(wālī) (Dard).
Ved(ic).
Waig(eli) (Kaf.).
Wakh. Wakhi, Waxī (Iran.).

INTRODUCTION

Indo-aryan, the development of which is summarised here, is one of two groups derived from a prehistoric Indo-european language known by the name of Indo-iranian. Aryan after the name, which those who spoke it, gave themselves; Av. *airya-*, OP *ariya-*, Skt. *ārya-*. The characteristics of this language will be found described in Meillet's book, *Dialectes indo-européens*, ch. II ; cf. Reichelt, *Awest. Elem.* § 8. The earliest Aryan texts show two languages already separated and their writers established in Iran and India respectively or, rather, in that part of India which borders on Iran.

There is earlier, but indirect evidence, which was discovered outside India. In the 14th century B.C. some princes of Mitanni (Upper Euphrates), connected with the Pharoahs by political and matrimonial alliances, bear names, which are apparently Aryan. One of these, in a treaty concluded with the Hittite king about 1380, calls his gods to witness, paired as follows: Mitra and Aruna, Indra and Nāsatya. Now Mitra and Varuṇa are regularly coupled in the Rgveda and the dual compound *Indra-Nāsatyā* is found once in a hymn to the Aśvin. But the god Varuṇa is unknown to Iran and in the Avesta Nånhaiθya and Indra are demons.

We have something better than divine names, which may have been borrowed. One, three, five, seven, and nine laps (of a race-track) are mentioned in a manual written in Hittite on horse-breeding and the terms used for them are Aryan. *Aika-vartanna* "a lap", particularly, possesses the suffix *-ka* with the numeral "one", a use not as yet known to exist in any early language except in Sanskrit.

Traces not only of Aryans, but even of the same tribes, which brought Sanskrit to India, are therefore found in Asia prior to the 14th century. It is, however, still impossible to make sure whether the invasion of India took place later or whether we have to do with tribes, which followed later or even had returned from

India.   The entrance of words known to Sanskrit, but apparently missing in Iranian, into Finno-ugrian must perhaps be ascribed to these groups: as Vogul *pāṅk* "soot", Skt. *paṅka* "mud" (E. Lewy, *Ungar. Jahrb.*, VI, 91).

Light is thrown on this indirect evidence by the most ancient texts, the Vedas, which emanated from the Aryans established in India.   Although the language of these texts is still very close to the earliest Iranian, it is clearly distinguished from it by permanent features, which affect the phonetic system.

Indo-aryan is characterised by two innovations:—the creation of a new category, cerebrals and the loss of *z* and *ž*, while the corresponding surds are preserved.   But it is Iranian, which makes the most important innovations.   Firstly, a very extensive development of the fricative system by the fricatisation of aspirated surds and also of surds in groups (e.g. *fra-* Skt. *prá* "before" Gk. *pró*).   Then the opening of *s* into *h*, the deaspiration of the aspirated voiced consonants and the dentalisation of the palatals (Av. *satam*, Pers. *sad*, Skt. *śatám*, a hundred; Av. *zāta*, Pers. *zād*, Skt. *jātá* born), the loss of *i* evolved from IE interconsonantal *ə*.   The two languages also diverge in the treatment of the vowel *r̥*.

On the contrary, the morphological systems agree almost without exception; the very rare divergencies do not affect any essential point.   One of the most striking differences pertains to the remodelling of the gen. sg.   Skt. *máma* "of me" opposed to Av. *mana* OP *manā*, which is older.   Not much use can be made of differences in vocabulary, because, among other reasons, early texts are rare and are all in a hieratic style.

This last statement also partly explains why the early texts of the two languages are so close to one another.   They are purposely archaic.   The R̥gveda is a collection of different epochs, certain elements of which date perhaps before the establishment of the Aryans in India.   Unity of style and grammar is maintained, but the phraseology shows that this unity is to some extent p. 3 artificial.   The presence of phonetic colloquialisms and at the same time their rarity confirm the fact that there has been selection.   As soon as the old hymns became difficult to understand, various schools preserved the meaning, studied grammatical peculiarities and interpreted phrases.   The Atharvaveda or Veda of magic, which is perhaps as old as the R̥gveda, but more popular in purpose, presents in some respects a later stage of language.

Thus from the time of the earliest documents a fundamental difficulty arises, to reappear in every period. They only partially represent the language and do so in a stylistic and archaic fashion. *A fortiori*, they give a very imperfect idea of the manner in which Indo-aryan was at first propagated in India. One catches a glimpse of chiefs settled with their priests and bards in forts or fortified villages like those, which until recently still characterised the Panjāb as compared with the dispersed habitations of the Gangetic basin; and the fields irrigated by wells and channels are a proof of stable settlement and of adaptation to the soil. But we do not know what part was taken in agricultural work by the various layers of the population and what degree of intimacy is to be presumed from the contact of the Aryans with the indigenous races. At all events the chiefs bear names with barbarous sounds sufficiently often to make it possible to suppose racial admixture extending to the nobility.

When we pass from the Vedic hymns to the exegetical literature, we find the geographical horizon further to the East and specific linguistic novelties. Can these last be explained by the diffusion of the Aryan language among the local population? It is tempting to say 'Yes', if we may suppose that the cultivation of rice involves a dense and continuous population and a social organization more compact than that of dry crop cultivation. Jules Sion surmises that the Ganges districts are "the region of mixed races in which Indian civilisation became crystallised and the system of castes developed" (*Asie des Moussons*, II, ch. XIX). But it would be impossible to admit this, if it were not proved by the subsequent history of the language. The texts at our disposal give no information on this subject, as they are of a scholastic nature. The language described by Pāṇini, following his predecessors, in contrast to the *mantra-* and the *chandas* is the standard of the colleges of the Brahmans and not that of the people of Śalātura, where Pāṇini was born. And that described about 150 B.C. by his commentator Patañjali, a native of the Deccan, is represented as the standard of the educated Brahman of the Madhyadeśa. Sanskrit is the property of a class, a cultural language. So much so that at this very time Khāravela, king of Kaliṅga, celebrated his exploits in an already refined Middle Indian. The inscriptions in which Aśoka addressed his subjects a century earlier are rendered in Middle Indian in several different dialects. Long before him, at the same time perhaps as the first recording of the old literature in written characters and certainly at the same time as the activities

of the Brahman schools, great religious and social reforms, such as Buddhism and Jainism were preached in the same vulgar tongue.

From this time forward Sanskrit does not die, but is used for fresh purposes. Foreign conquerors take possession of it for public documents. The inscription of 150 A.D., which we owe to the Iranian Rudradāman, is in Sanskrit, while his Sātakani rivals employ Middle Indian (S. Lévi, *J. As.*, 1902, I, 109). Certain Buddhist schools compose their canon in Sanskrit and the Brahmans themselves make use of it for lay sciences such as medicine and *artha* and for epic poetry addressed to a larger audience. But it has to break with the old esotericism in order to appeal to new classes, if not peoples.

The grammar is simplified, as is right in a language, which is no longer a native tongue and must be learnt. For example, the instrumental and the nominative plural of thematic nouns each retain only one ending. Simplification is especially apparent in the verb, variant forms of which tend to disappear altogether and in which analogy causes normalisation. The vocabulary, in contrast to the morphology, is enriched enormously in spite of the elimination of archaisms, and this not only because the texts treat of new subjects, but because new words have been introduced from new Aryan dialects and indigenous tongues. Sanskrit remains, therefore, the language of the upper classes, but there is a gulf between this Sanskrit and Vedic.

It follows from what has been said above that this language too is not material, which can be utilised by the linguist directly. It has for him the convenience of demonstrating in a Sanskrit form the changes experienced by the old language, but one must p. 5 consider it as Middle Indian transformed. It is no accident that a number of verses are found in the Mahābhārata, which correspond with strophes occurring in the Buddhist canon, more closely even than the Avesta with the Veda. They are two versions of one language, the evolution of which is masked in classical Sanskrit and its tendencies reflected more exactly by Middle Indian.

Further the Sanskrit of the Mahābhārata, the codes and so on is based upon a Middle Indian which it invests with nobility. The subsequent classical literature broke with the vulgar tongues completely. During this period Middle Indian supplied the needs of the more ordinary of the written languages—those of lyric poetry, the drama and didactic literature. Sanskrit again becomes an exclusively scholastic language, to which only a select claas has access; the "language of the gods" is used for lay purposes,

but "it touches earth only at the mountain-tops." (S. Lévi). The privileged persons who handle it, play upon it at will. They apply the traditional grammar with the utmost strictness, even *ad absurdum*, as in the use of sandhi and in the inordinate extension of noun-compounds. As regards vocabulary, they restore their Vedic sense to certain words (*śloka-* glory), they extend their meanings by analogy with partial synonyms (*yuddha-* pair, after *dvandva-*; *vastra-* sky after *ambara-*), they make arbitrary derivations from them. Wackernagel has shown how they distribute the meanings of doublets (*pāraya* resist, be able, *pālaya* protect, guard; *rabh* take, *labh* find, receive; *śukra-* Venus, semen, *śukla-* white).

In the living language there is no longer any restriction to these fancies; the linguist can make little of Sanskrit, if he attempts to find in it anything more than the history of style, and a forecast of the modern vocabulary.

To return to Middle Indian. It took shape, as we have seen, before the period, of which the Mahābhārata epic may be taken as the symbol. We possess a dated record of this language, the first dated document in Indian history, in the inscriptions of the Buddhist emperor Aśoka (c. 270 or 250 B.C.). Apart from their date and their comparative absence of artificiality, they have the merit, without parallel until Sir George Grierson published the Linguistic Survey, of supplying a synchronic view of several actual tongues.

p. 6   They can be divided into four zones:—(i) Towards the North-west at the gates of India, the inscriptions in Kharoṣṭhī script (or Kharoṣṭrī, derived from Aramaic cursive), in which survive the Sanskrit hush-sounds, the treatments of *ṛ* and of the sibilant + *v* are Iranian in appearance and the locative sing of masculine thematic nouns is in *-e* or *-aspi* ; (ii) those of Gīrnār, in which *dv*, *tv* become *dp*, *tp*, and the locative of nouns is in *-e* or *-amhi* ; (iii) those of the Gangetic basin and the delta of the Mahanadi, characterised by the use of *l* instead of *r*, by the change of the *-o* from Skt. final *-aḥ* to *-e*, by the present participle middle, by the locative singular of the noun in *-a(s)si* etc.; and finally (iv) those of the Deccan, which agrees with the preceding, except that *r* appears with *l* in a variable degree. To this group also belong the Bhabra inscriptions (intervocalic *l* and conjunct *r*)—but not the neighbouring fragment at Bairat—the Sanchi pillar, Rupnath and far to the South, the whole group in the Tungabhadra basin (Maski, Siddapur, Kopbal, Erraguḍi) and, finally, Sopara on the western coast.

This distribution has some connection with certain of the known literary dialects. The northwestern group has some points of agreement with the Dutreuil de Rhins manuscript; Gīrnār is close to Buddhist Pali and the Ganges group to the Māgadhī of the classical drama. Finally, the coexistence in the Deccan of the retained *r* and of the nominative singular in -*e* recalls the Ardhamāgadhī of the Jaina canon. But, if we take these approximations seriously, we miss the equivalent of the two principal classical Prakrits, although they have local names, Śaurasenī and Mahārāṣṭrī. Further, there exist a certain number of inscriptions approximately contemporary with Aśoka, the characteristics of which only partly coincide with those of his inscriptions. This is the case with those of Magadha, which have orthographical variants of the sibilants (*sasane* at Sogauhra, *salila-* at Piprawa, but *śuṭanuka* at Ramgarh and *Daśalatha*, the name of the grandson of Aśoka at Barabar). There are points of connexion between the Kushān inscriptions and the dialect of Shahbazgarhi, but there are also contradictions, which the difference of period is not sufficient to explain. The Sopara fragment, written in Gangetic Asokan, occurs in a province in which there are abundant inscriptions containing *r* and the nominative in -*o* (Nasik, Nanaghat, Karle, Kuda); this is equally the case in the central region at Bharhut, Bhilsa, Besnagar and even at Sanchi. On the east coast, at Udayagiri quite close to Dhauli, Khāravela's panegyric, a century later than Aśoka, presents again the same characteristics.

Other factors besides locality have therefore to be considered. In fact, the Tungabhadra group, in the very middle of the Dravidian country, like the stūpa inscriptions of the lower Kistna, which have *r* and *o*, should be sufficient to warn us of this need.

Early epigraphy, then, teaches us both that Middle Indian had subdivisions and that certain varieties of it must have radiated beyond their own spheres. But it is impossible to map the centres of radiation. The only clear point is the temporary expansion of Magadhan and thus one is justified in calling the Asokan dialect, which is attested in the West as far as Delhi and beyond, eastern. The other records only give fresh proofs of subdivision and set new problems of localisation.

Thanks to the Buddhists, we have a series of documents written in languages, which, it seems, have not been normalised by the grammarians and at all events have not been brought into uniformity with the languages of Gangetic India. We have already mentioned the very numerous Kushān inscriptions on the West of the Jhelum—in the Shahbazgarhi region—which

extend South as far as Mohenjo Daro and East to Mathura. They are evidently related (as may be seen from the script and perhaps the script is in some way responsible for the relation) on the one hand with the Shahbazgarhi inscription and on the other with the Dutreuil de Rhins manuscript, a fragment of the Dhammapada imported from the Panjab to Khotan about the time of the Christian era, and, finally, in certain details, with the language of the documents of the same period found in Turkestan, at Niya and up to Lob-nor. But this last, being a language with a practical object unconnected with literature, was developed to a greater extent than the others.

However, there are manifest differences. Aśoka's loc. sg. *-aspi* is not found in the other series; *-a(m)mi* of the Kushāns, *-ammi* of Niya is also missing in the Dhammapada, which goes so far as to replace the long form of the locative by the genitive, hence *asmi loki parasayi* contrasted with Pali *asmiṃ loke paramhi ca* in this world and the other. The Dutr. ms. alone voices an occlusive following a nasal and while the inscriptions of Aśoka have an absolutive in *-ti* or *-tu*, that of the Kushāns is in *-ta (karita)* and the Dutr. ms preserves *kitva* (Pa. *katvā*), *chitvana* (Pa. *chetvāna*) and yet has *ṇihai* (Pa. *nidhāya*) in contrast with Kushān *likhiya*. The nom. sg. masc. of thematic stems in Aśoka ends in *-o*, in *p. 8* Dutr. in *-o* or *-u*, but in the inscriptions to the West of the Indus, except Wardak, in *-e (khade kue* a dug well). The ending of the nominative at Niya is colourless, but the type *lade (tataḥ)* as in Aśoka and the new formation *śrudemi* "I have heard" show the same change from a previous *-o*.

Is this last change due to local influences? (v. Konow, *Kharoshṭhi Inscriptions*, p. cxii). If so, it must be distinguished from the apparently similar change in the Gangetic inscriptions of Aśoka (the parallelism of As. *Takhasilāte, mukhate: tato pachā* with Niya *khotaṃnade, lade: tato pāca* 722 B 8 should be noted) and from the change met with also in Ceylon. For Sinhalese epigraphy begins with short inscriptions in characters of the Asokan type: *mahalene... sagasa* (note the loss of aspiration already) *dine* great cave given to the Community.

But the stūpa inscriptions of India have not this final *-e*. They are very close to Pali, the language of the Sinhalese canon, without being identical. For example, Sanchi and Bharhut have ablatives in *-āto* Pa. *-ăto*. The difference may be explained chronologically (v. p. 132), but the form *bhichu (bhikṣu)* contradicts Pa. *bhikkhu;* *nhusā, nusā (snuṣā)* contradict Pa. *suṇhā, husā* (this second form is, however, uncertain). But where did Pali itself, which was

imported into Ceylon come from? The Buddhists give it the name of Māgadhī, which does not agree with its linguistic features, but could be explained, if we accepted Przyluski's idea (*La légende de l'empereur Asoka*, p. 72, 89) that the canon was compiled at Kosambi, where, in fact, an Asokan inscription in the "eastern" dialect is to be found. It would be also necessary to suppose that the language of the Buddhist community came from elsewhere. Bharhut is more than 60 miles away, as the crow flies and, besides, it has been shown that the inscriptions there are not exactly in Pali. Search has been made further away at Ujjain and even at Takṣila without decisive results. Moreover, even if we could find the precise home of Pali and contemporary local documents of the period thereat, there would be no guarantee that this language would be identical with the Pali of our texts. For, according to tradition, the canon of the Theravāda was put into writing in Ceylon shortly before the Christian era. Then about the year 470 A.D. a commentary was made on it under the direction of Buddhaghoṣa, a Magadha Brahman, who not only knew Sanskrit, but had it in mind, when he edited his commentary and it may be suspected that his text has actually been revised in the light of Sanskrit.

p. 9   The earliest date to which the ms. tradition goes back is the 12th century, when the grammarians gave a systematic description of the standard language (H. Smith, *Saddanīti*, p. vi). Further, S. Lévi (*J. AS.*, 1912, II, p. 498) has found in certain irregularities of proper and technical nouns traces of a linguistically different precanonical language, which had already been used for sacred texts in Aśoka's time (was this the real Buddhistic Māgadhī?). This then explains why the Jaina canon, which must be approximately contemporary with the Buddhist canon, was preserved in a language of a much later phase. Contrariwise to Buddhism, Jainism has, so to say, "taken the language at its lower level, half Māgadhī (ardhamāgadhī) and adopted it as its sacred language" (S. Lévi). A nobler language, close to Pali, is used for the royal panegyric of Khāravela. But these two languages are literary languages and not merely transcriptions of the vulgar tongue, as the common employment of certain stylised formulae indicate.

Buddhism has also employed another literary language besides Sanskrit. There is quite a store of Jaina, Buddhist and even Brahman inscriptions at Mathura, in a style very near to Sanskrit, but incorrect. It has ablatives in -*āto*, gen. sg. in -*āye*, gen. masc. such as *bhikṣo*, *bhikṣuno* and *bhikṣusya*, and instr. *dhītare*. Nepal

also has produced Buddhist books in "mixed Sanskrit" dissimilar, but analogous to that of the Mathura inscriptions. The latter are not unsuccessful attempts to write Sanskrit, but rather ill-devised efforts to give a literary form to a local language. The incoherence of the dialect, not only in different texts, but in one and the same text, is sufficient proof that there can be no question of transcription pure and simple.

The problem becomes all the more complicated, if one considers the prakrits of classical literature. It is well-known that in the drama different characters speak different languages. Sanskrit is spoken by the king and the Brahman, Śaurasenī by women and persons of middle rank and Māgadhī in addition by comic characters. Not to mention Mahārāṣṭrī reserved for sung verse and sub-dialects, which encumber the pages of the grammarians rather than the actual plays. There is no improbability in such a mixture of languages. It was not intended, indeed, to match the distribution of languages in the audience, but in a society so class-conscious and composed of such fleeting elements, the most diverse tongues (yet felt to be related) must have continually come into contact with each other. Even to-day one can see in the amusing description of S. K. Chatterji (*Calcutta Hindustani*, p. 12 in *Indian Linguistics*, I) what a tower of Babel the home of a rich Calcutta townsman may be. Unfortunately for the linguist, the Sanskrit drama does not, like our comedy of manners, devote itself to portraying society. It is essentially, as S. Lévi says, the transference of the epic and the story to the stage. It would then be fundamentally wrong to expect from it information about the languages, which the characters are supposed to make use of. Śaurasenī, which forms the basis of it, is not the speech of distinguished women and undistinguished men, but the language, certainly stylised by this time, of the touring companies based on Mathura, which popularised the drama in India. Dramatic Māgadhī is the product of stylisation, as is evident from the fact that -*e* for Skt. -*aḥ* is only used for the nom. sg. of nouns and not on other occasions, as in Aśoka. This stylisation of dramatic prakrits has, however, passed through at least two stages, for the fragments of Aśvaghoṣa, the plays attributed to Bhāsa and the lyric fragments preserved in Bharata's treatise display stages of language prior to those of the classical drama. Even the conventions were different in this period, for the lyrical stanzas of Bharata are in Śaurasenī and not in Mahārāṣṭrī (M. Ghosh, *IHQ*, VIII, 1932, p. 9, L. Nitti, *Grammariens prakrits*, p. 86 foll.) and Bharata admits Ardhamāgadhī in drama, which

is confirmed by Aśvaghoṣa (Lüders, *Bruchstücke buddh. Dramen*, p. 42). One would be glad to possess more specimens of this early group, which was no doubt less remote from ordinary speech than the classic series. It is remarkable that Bharata calls the dialects of the different characters *bhāṣā* "speech, tongue" and not *prākṛtam* like later authors, with a technical meaning from which the primitive meaning of "vulgar" has disappeared (whether it is interpreted as the language of "subjects" as opposed to that of "kings" and "gods", or (preferably) as the basic opposed to the refined tongue, *saṃskṛtam*).

Mahārāṣṭrī, which occurs rarely in drama, is used in a learned form of epic poetry and also in a form of lyric poetry, which is popular at least as regards its subject, while it is extremely refined p. 11 in style. Jaina prakrit resembles it closely. It is the typical Prakrit. Daṇḍin calls it *prakṛṣṭa*, because it is the most generally used (L. Nitti, *ibid.*, p. 2). The loss of intervocalic consonants, which still remain as voiced consonants in Śauraseṇī, is complete and so *maa* can represent *mata*, *mada*, *maya*, *mṛta* and *mṛga*. It helped the singer by providing him with a maximum number of vowels and afforded the literate a maximum number of enigmas, but to the modern linguist it is valuable, because it represents an essential stage of the development of Indo-aryan and also because it allows us to gauge the utility of recourse to Sanskrit, which was even more necessary than Latin has been to French for avoiding ambiguities of meaning.

To complete the tale of prakrits we should include Paiśācī, which, according to a late writer, was used by a Buddhist school and in which the bourgeois epic of Guṇāḍhya was written. This work, the Bṛhatkathā is preserved only in minute fragments. The dominant characteristic of this prakrit was the unvoicing of voiced consonants—a pronunciation eminently demoniacal. It is perhaps wrong to attempt to assign to it any definite locality or, as according to the grammarians there are several varieties, localities.

Prakrit literature was, from the start, a relatively learned production and continued till a very late date, becoming more and more artificial. It is not yet dead, any more than Sanskrit. It is easy to imagine that its deviation from the tongues in general currency became more and more noticeable. Normally the forms of the words could be taken from the Sanskrit, source of all culture, but gradually words of ungrammatical meaning or appearance had, as in Sanskrit, slipped in among them. Lists of these roots and of provincial or *deśī* words had to be drawn up, to the benefit of modern etymologists.

Finally Prakrit itself began to be superseded, not yet by a self-developed modern language, but by a modern language in Prakrit dress—Apabhraṃśa. The Jainas retain Prakrit for their holy books, but otherwise they prefer Apabhraṃśa.

The name Apabhraṃśa is not local. It is abstract like Prakrit and Sanskrit and is opposed to them. Its original sense is something "aberrant". Patañjali applies it to certain forms of old Middle Indian, in common use in the Sanskrit of this time, but, from his point of view, incorrect. When Middle Indian was developed and standardised, *apabhraṃśa*, like Bharata's *vibhraṣṭa*, must have been applied to forms more fully evolved and not yet recognised as normal literary forms. But a time came, when not only did some of these forms creep into Prakrit, but the language was admitted as a written form on a par with Prakrit. It is so classed in a treatise on rhetoric of the 6th century and during the same period Guhasena King of Valabhi was termed by his grandson a talented writer in the three languages, Sanskrit, Prakrit and Apabhraṃśa. Later, the grammarians discussed this language together with the prakrits, assimilating it to them. In fact the oldest documents of it, which we possess, date at the earliest from about the year 1000 and originate from the Jainas of Rajasthan and Gujarat. In them the influence of definite existing languages is felt through the prakritisation necessary for written work. Subsequently Apabhraṃśa detached itself from its native soil and extended over the whole of North India. Jainism alone does not account for this. Its forms are found in the Braj of the bardic epic poetry. And in very early times there was an eastern variety, attested by the later Buddhist hymns, which influenced the Vaishnavite hymns of Vidyāpati of Mithila and supplied the Prākṛtapiṅgala, a work on Prakrit prosody, with some of its examples. Commentators call it *avahaṭṭa bhāsā*, a name which recalls both the original model and the local varieties.

The extension of Apabhraṃśa, like that of the literary languages, which preceded it, was naturally more easily effected in the areas in which the languages did not fundamentally differ from it and where the poets could, like the Rajput bards, consider the knowledge of several languages an adjunct of their profession. This is the explanation of the mixed languages, which are apt to be disconcerting to those who expect sifted, coherent forms of the vulgar tongues in the written texts. Apabhraṃśa is mixed with Prakrit in variable and sometimes extensive proportions. It contains, moreover, instructive dialecticisms and thus, although it has features suggesting a linguistic stage, does not represent a language.

p. 12

It is, as we have seen, by no means exceptional therein.   None
of the written languages of India qualify as direct evidence.
Accordingly it is not nationality or regionalism, which are of
p. 13 importance to writers and govern their choice of method of
expression, but the literary *genres*, which are separated by rigid
barriers, as men are by caste.   We have already seen this to be
true for classical Prakrit.   Even in the Vedas differences of date
consist in deliberately staggered archaisms.   The liturgical texts,
which appear to be later are the work of schools, whose language
was doubtless as capricious as that of the earlier poets and of the
Buddhist schools, which utilised either Sanskrit or one of different
forms of stylised Middle Indian.   As for inscriptions, those of
Aśoka constitute a happy exception.   Yet it may be predicted
that a closer analysis will bring to light formulas as in the case of
quotations, which have already been discovered.   At any rate
certain Deccan inscriptions and Khāravela's panegyric differ from
the classic prose (gadya) in dialect only.

Highly variegated though it is Middle Indian is therefore of
little help to the linguist.   It is impossible to localise the languages;
they can only be defined abstractly by their internal characteristics,
so as to agree with their actual formation, which is generally
arbitrary and regulated according to an external model—Sanskrit.
Thus the best use to be made of them in conformity with our
scheme, consists in seeing in them not documentary evidence, but
symbols of successive stages of Indo-aryan considered as a whole.
The details preserved in one language or the other will serve not
so much to define them, as to enable the recognition of intermediary
stages or the deduction of abortive processes.

Besides, authority is given to this scheme by the very unity
of Indian civilisation.   Like the literature whereby it is expressed,
it is characterised at once by an extraordinary continuity over an
immense area and by the powerful social moulding influence,
which imposed the fiction of a hierarchy of castes, headed by the
Brahman, the holder and dispenser of culture, upon an innumerable
variety of social groups.

It is impossible to say how deeply the different forms of Indo-
aryan penetrated into the various social classes or regions.
Political history has nothing to tell us about the centres and the
strength of linguistic expansion.   But the unity of Indian civilisa-
tion is of remote date.   The Greek travellers in the Ganges valley
p. 14 heard of the southern kingdoms and Sanskrit influence is
conspicuous in the earliest Tamil poems.   The limits of linguistic

unity are the same as those of Brahmanism and the only languages remaining outside them are those of the Northwest, which was for a long time Buddhist (although containing relics of the Vedas, such as the tribal name Baškar, which is no doubt the same as that of the school, which preserved the Rgveda) and Ceylon, which is Buddhist to this day. It all appears or, at least, is made to appear as if there were a common Middle Indian, the successor of a single Sanskrit.

Yet this is not quite true. For some isolated survivals prove that there were other forms of Aryan speech in India besides Sanskrit proper. It would be astonishing, indeed, if there had been no variants in the immense area covered by the old bhāṣā. Moreover, it is interesting to trace or to infer their limits in Indo-aryan and in this way to get a more accurate idea of their status in literature and society.

The largest number of these traces has been collected from Pali. It is a language which depends less upon Sanskrit than does classical Prakrit. Moreover, its relatively archaic form makes observation more certain. Pali preserves Vedisms like *kīvant-*, *kīva-* how much (*kīvant-* has been replaced in Sanskrit *by kiyant-*), *kiṇāti* buys (the first vowel of RV *krīṇāti*, in spite of the spelling, is scanned short, in conformity with the etymology, like the stem of the optative *huveyya* (cf. Ved. *bhuvat*, Lat. *fuat*, H. Smith, *Saddanīti*, p. 454, n. 4). Further, it preserves Indian forms already changed in Vedic: *idha* here, *pātu* visible, and the suffix of *sabbadhi* everywhere, are less changed than *ihá* AV *prādúḥ* RV *prātár* and the suffix of Skt. *uttarāhi* in the North. Pali *alika-* contrary, false, *vammika-* ant, have a more normal (and less popular?) form of suffix than AV *álīka-* VS *valmíka-*. Av. *snāvarə* tendon, muscle, helps to explain Pa. *n(a)hāru* as against Skt. *snāyu*, *snāvan-* VS *asnāvirá-* (v. Turner s.v. *nahar*). We find in Av. *hāmo* the same, the equivalent of Pa. *sāmaṃ* even; O. Pers. *šaiy* Av. *še* Gath. *hōi* the equivalent of Pkt. *se* of, to him, them. Similarly it is Iranian, which alone provides a parallel in cases in which Pkt. *jh* answers to Skt. *kṣ* (v.p. 52) and the initial group of *cha* six (which has survived. v. Turner s.v. *cha*). We find in Iranian the equivalent of the nom. sg. m. *guṇavā*, *sīlavā*, the stem of *bhiyyo* more, Skt. *bhúyaḥ* and of the fut. *hehiti*, aor. *ahesi*, cf. O. Pers. opt. 3rd sg. *biyā* let it be, Lat. *fīō* (Saddanīti, p. 461, n. 8). We may wonder whether the use of *iyaṃ* in the masculine made by Aśoka at Kalsi is not the same archaism as in Old Persian

(Benveniste, *Studi baltici*, III 127; it is true that we also find Pa.

AMg. *ayaṃ* in the feminine).   One must look even beyond Aryan
for other correspondences.   Thus the stem *du-* as opposed to Skt.
dvi- two (Pa. *dutiya* second, *dujihva* with two tongues, cf. Lat.
duplex, Umbrian *duti* anew, Lettish *duceles* carriage with two
wheels); the Prakrit genitives *maha*, *tuha*, also, no doubt, in the
plural and the gen. acc. *ahma(m)*, *umha* (H. Smith, *MSL* XXIII,
p. 272.   Khotanese *umā* would be secondary according to Konow,
Saka Studies, p. 48).

One may therefore have to ransack sources of vocabulary
parallel with Sanskrit, but outside it.   Thus, Pa. *upādi* "substra-
tum" is regularly opposed to *upādā*, like Vedic *nidhi* to *nidhā*—
the equivalent Skt. *upādhi* is formed from another root.   And
in particular, one can expect to find forms, which are difficult to
explain, because the intermediate forms are missing—as futures
like *dakkhiti*, *ehiti*.

These then are the remote predecessors of the Prakrit *desī*
words and are all the more interesting because they reveal the
existence of languages, which would be unknown, were it not for
them.   The *desī* words supply only indications of style and
fragments drawn from the vocabularies of languages, which are
still open to observation to-day.

The period during which the modern languages emerged is
unknown.   It may be surmised that, if Apabhraṃśa could be
written in the 6th century, it was because the stage of language
to which it belongs, appeared in Gujarat to be sufficiently archaic
to be put on a plane with Prakrit.   According to Shahidullah
the *caryās* of Kaṇhā date about the year 700 but Bagchi and
SK Chatterji relegate them to the 11th or 12th century.   These
songs are very archaic in appearance.   Elsewhere the break with
Middle Indian is accentuated in proportion to the lateness of the
first of their texts.   A few very short Marathi inscriptions belong
to the 12th century together with some Bengali glosses (a short
correspondence between Rajput princes formerly attributed to
this period is now held to be spurious).   But the Marathi Jñāneśvarī
was completed in 1290; a Sanskrit grammar in Gujarati dates
from 1394, a century later and the Sufi books of Gīsu Darāz, the
earliest record of Urdū, are put about the year 1400.   The first
Gujarati poets appear in the 15th century only with Vidyāpati in
Bihar and in Kashmir, the Mahānaya prakāśa in a language, which
is not properly Kaśmīrī.   The Padumāvatī of Muhammad Jaisī
written in Awadhi and the first Assamese texts date from the 16th
p. 16 century.   The early parts of the Ādigranth of the Sikhs date at

the earliest from this period. It should be added that the tradition of these texts is not certain; we have not been able to include the Prithirāja rāsau, which would have been of value, because of its size, but is suspect and has at any rate been subject to interpolations. The Jñāneśvarī was revised in 1584. In a general way, the ms tradition is little better than oral tradition as regards the written texts and it must be confessed that as yet little effort has been made to deal with it critically. On the whole, the only good documents belong to the modern period. The best are naturally those, which were collected, classed and interpreted in the magnificent *Linguistic Survey* of Sir George Grierson. They have the incomparable advantage also of covering almost the entire field of Indo-aryan and often of overflowing it. In them we have the best criterion for using early documents, which were ill-preserved, already stylised and mixed according to the caprice of their writers.

What first strikes the eye about the map of Indo-aryan is the continuity of its field. This agrees with what one knows about the expansion of Brahman civilisation, which took place on the surface at the instance of the upper classes, before it went deeper. Even to-day you may see certain languages over-flowing into the towns adjacent and English also has spread through the universities and the various branches of administration. The princes' courts did yesterday, what the middle classes do to-day and thus the network of cognate languages was tightened without destroying local idioms. Indo-aryan allows within its area uncivilised patches and its missionaries reach distant spots (Sinhalese; Asiatic and European Romany). But its field does not suffer from the discontinuities of the Finno-Ugrian or the Romance families, the developments of which are to some extent analogous. India has absorbed its conquerors and, although Islam has contributed to the formation of Urdū, it has left no islands of Iranian or Turkī. The Rajputs, men of a foreign race, adopted and propagated it in the Himalayas without making any change in it.

It might be supposed and several persons have supposed that the various modern languages are based upon ancient languages, which are quite distinct from one other and reproduce their peculiarities. In reality, or, at least, so far as the linguist can tell, it is almost as if a uniform Middle Indian, the successor of a Sanskrit itself almost uniform, was the basis of the majority of modern Indo-aryan languages. The differences are clear only in the p. 17 exported languages and the dialects of the north-west frontier zone, which themselves flourished on the periphery of the central

area.   Even these differences do not completely mask the relation-
ship, between these languages and those which may be termed for
convenience Prakritic.   The continuity of the latter has often
been remarked and the linguist frequently has trouble in recognising
their boundaries.   Sometimes they are obscured by blending
(what Grierson calls mechanical mixtures).   More often it is a
matter of gradual changes, whereby two languages mutually
unintelligible are separated by a series of intermediate dialects
differing from each other imperceptibly.   There is accordingly
no reason to be surprised, because the boundaries are debatable.
Is Bhojpurī connected with the neighbouring languages of the East
or of the West?   Is the language of Kachh Sindhī or Gujaratī?
Where is the western limit of Panjabi in relation to Lahndā, which
was not isolated and named until Grierson did so?   In a country
in which the vague shifting political frontiers have never
corresponded to nationalities, you cannot expect to find true
linguistic boundaries.   No doubt, now that the principal groupings
have been determined, it would be possible to show on a map,
not linguistic zones, which would be more continuous or more
definite than in actual fact (there are so many cases in which
several languages are spoken simultaneously in one area or even
by one individual), but isoglosses overriding provincial frontiers.

Fortunately a precise and complete apportionment of languages
and dialects is not essential to the plan of the present work.   It
will be enough to give the characteristics of the principal groups.
Let us emphasize the most abnormal.   The earliest Indo-aryan
colony, if we exclude the colonisation in the interior, which diffused
Aryan throughout India, conveyed Middle Indian by sea to the
South of Ceylon.   There it underwent strong Dravidian influence,
while Pali supplied a standard analogous to that furnished by
Sanskrit on the mainland.   It has therefore diverged considerably.
Its vowel-system implies interaction of the vowels of a word.
There are no longer any aspirated stops or old palatals.   Gender
is changed in meaning, pronouns and verbs have special formations
—but it is still Indo-aryan.

p. 18   Romany or rather the Romany tongues have been less divergent,
doubtless because they were detached later and also because they
were preserved by their employment as a special or secret language.
The Gipsies are not colonists, but intruders.   They have to learn
the language of their surroundings, in order to communicate with
the residents and adopt the elements of their language, as necessity
arises.   In Armenia they took over the whole grammar, but more

generally they drew on the vocabulary and Miklosich has been able to trace their journey through Europe by the words which they have borrowed. The European group coheres, but the Asiatic branches do not entirely conform with it. Nuri alone fricatises *th* into *s* and turns intervocalic *t* into *r* not *l*. Further, Skt. *hasta* hand, becomes in Nuri *xa(s)t*, Eur. Rom. *vast*, but Arm. Rom. *hath*. Armenian Romany has *l* for *t* not only intervocalically, but initially (*lel* he gives, Nuri *der*, Eur. Rom. *dela*). The voiced aspirated consonants are disaspirated in Nuri and unvoiced in Armenia and Europe:—*thow* wash, Nuri *daw*. Finally European Romany alone displaces the aspiration of a medial consonant and thus the opposition of Nuri *ban(d)*, Arm. Rom. *banth*, Eur. Rom. **bhand>phand*, contrasted with Skt. *bandh* tie. These differences accentuate the uncertainty of the date (first half of the 5th century?) and of the exact origin of the Gipsies. From this point of view the most significant fact is the passage of a dental to *l* or *r*, which in Indo-aryan is only met with again in Kalastra *(l)*, in Khowar *(r)* and in Afghan, Minjani, Yidgah, eastern dialects of Iran. There is, moreover, confirmation from the topography of the region. The river Gomal (Skt. Gomati), for example. Woolner has rightly reminded us that the frontier of Indo-aryan must have reached more to the West in former times and that Afghan and Balochi are recently imported languages.

Even if Indo-aryan withdrew from the direction of Iran, it certainly ascended the slopes of the Himalayas in the North. History informs us of Rajput settlements in that region and the teaching of history is illustrated by a linguistic graph in *LSI* I, p. 184. The old Tibetan language Nevari and the Aryan Nepali still confront each other in Nepal. The problem is more difficult as regards the western region:—Kashmir, the valley of the Indus from the gates of India to Gilgit (Maiyā, Shina), Swat (Torwali), Chitral (Khovar), Kafiristan between Kunar and the Hindu Kush p. 19 (Kalasha, the Kafiri group and Pašai) plus an island to the South of the Kabul river (Tirahi). Quite a series of dialects is situated in this region, but Kašmīrī alone has the honour of possessing a literature. They differ sufficiently from the languages of India proper to have induced Grierson to form them into a special family. These peculiarities are sufficiently explained by their isolation, which is not of recent date. Further, it is possible that several of them were the result of relatively recent migrations, so much so that greater differences might have been expected among them. The labours of Morgenstierne clearly show that, after taking into account Iranian and Indian influences (the latter being

particularly strong in Kashmir, an important centre of Sanskrit culture), Dardic is certainly Indian. Only it has not passed through the Prakrit stage. Consonantal groups and often inter-vocalic consonants have persisted, there are fricatives and no aspirated consonants and so forth. The only group which really raises any doubts is Kafiri (Kati or Bašgali, Prasun or Veron, Aškun, Dameli), the Indo-european palatals of which have developed somewhat as in Iranian (v. p. 52).

The interest created by the above modern languages greatly transcends their numerical importance. But it is not desired to give details here of languages, which have been frequently described, although some of them rank with the greatest in the world. Hindi in the broad sense of the word, ranks as the 6th, Bengali as the 7th, before French, Bihari as the 13th, Marathi as the 19th and Panjabi, Rajasthani, Oriya, as the 22nd, 25th and 28th respectively (according to L. Tesnière in Meillet, *Langues de l'Europe nouvelle*[2], p. 483). In order to prepare the reader for the use that will be made of them later, we will remind him only that they are grouped in zones marked by particular characteristics (without, as we saw, distinctive boundaries).

As we descend the Indus, we meet Lahnda and then Sindhi, which in certain respects, are distinct from the other languages of India proper and are reminiscent of Dardic. For example, the use of pronominal suffixes and certain characteristics of pronunciation and vocabulary, which might induce the belief that their Indianisation, if one can use the term, is comparatively recent.

The characteristics, which distinguish the remaining languages are of a different order and result either from differences of development or from the influence of non-Aryan languages. The first case is that of the southwestern and Gangetic groups.

p. 20 The relationship of Marathi and Gujarati is obvious; further old Gujarati and old Rajasthani are the same language; then too, you pass directly from Rajasthan to the Ganges basin, where the languages are more closely allied, than anywhere else in spite of the distance. It is that area therefore which has always contained the centres of radiation stretching from the Sanskrit *Madhyadeśa* to Kanauj and Delhi. Hindustani probably emerged from the absorption of the Panjabi dialects of soldiers by Braj; Panjabi and northern Rajasthani were subject to the influence of Hindustani. Not so long ago Urdū advanced to the East viâ Lucknow, where it is a noble language and it has now reached Calcutta, where it has assumed the role of a pidgin language. Eastern Hindi has thrust as far as Benares and so on.

Contrariwise, the region assigned to Hindi by natives of the country ceases near Patna. Here you enter the eastern group— Behari, Bengali (with its colony Assamese) and Oriya. In these parts *a* becomes closed and borders on *o* ; the grammar in particular displays idiosyncrasies, one of the most striking being the future in -*b*- derived from the Sanskrit participle. The map thus gives the impression of a central group and an outer zone. Hypotheses have been built upon it, which cannot be verified historically and probably the application of isoglossal lines would disturb the neat arrangement of this grouping.

It is of greater importance to indicate the chronological break, which isolates the whole of Neo-indian. The latest form of Middle Indian, as we find it, for instance, in Apabhraṃśa, is, even so, only a disfigured Sanskrit. The grammatical categories and the syntax have not changed. But in the oldest forms of the modern vernaculars, declension tends to be confined to just, two cases, one of which is accompanied by postpositions; the old present, which is the only or almost the only representative of the verb-forms, has annexed forms from nouns and so on. Beginning from this period, there is no longer any limit to grammatical change. Sanskrit is too remote to have any effect except in supplementing technical vocabularies until the time came when they drew from Persian and then English. But while Sanskrit remains the language of culture, the modern languages have no share in that culture; indeed, simplified in the extreme under the influence of less civilised substrata, as in Bengal or to serve the needs of a soldiers' language like Hindustani, they remain popular languages. They are used for lyric poetry particularly, but not for learned works. Now that education is p. 21 becoming general, the adaptation of the vernaculars to its needs presents a difficult problem. The instrument is not yet fit for use and it will be seen below, how the syntax, even in the most developed languages has remained rigid. To revive once more the comparison so often made with the Romance languages, it is striking that the definite article and the verb "to have" are nowhere to be found.

But we are not here settling the future of the Indian languages. The object of this work is, as indicated in the beginning, to give an outline of the past. It would be a longer task to trace a complete picture and there would be little use in doing so, for the main features of this picture have already been drawn in detail by experts. I do not intend to remould or even to summarise,

what has already been so well done. Neither do I wish, even if I could, to break the ground for the comparative manual of Neo-indian, which Grierson, after beginning it and having prepared so much material for it, had to abandon and which is now promised us by Professor Turner. I should like to say, if it needs to be said, that the scope of the present work has had the approval of Prof. Turner himself. My purpose is more limited,—to display side by side and explain, so far as can be explained by such confrontation, the actual facts in the different periods, the essentials being borrowed from more competent writers and to insert in their proper places significant facts, which have been noticed by myself or others and have not yet found a place in the manuals.

As one, who was reared in the school of Sylvain Lévi and A. Meillet, I should have preferred to bring the evolution of these languages into close relationship with the histories of the peoples who spoke them. But it is well enough known that for the earlier periods no administrative, judicial or private archives (apart from the innumerable charters of grants in classical Sanskrit) or provincial laws, or memoirs or correspondence (except the documents from Niya) or, of course, orations, or comedies of manners, have been transmitted in writing. The greatest events of political and religious history alone stand out without exact localities or dates and their effects are rather a matter for inference than positive statement. I have had, therefore, to limit myself to a purely linguistic and even grammatical exposition.

In view of the plan which I have described, there was no reason to extend myself on every point. I may be forgiven for p. 22 unevennesses of treatment. I am conscious of them, but they appear to me not to have impaired the sense as a whole. Similarly I have not provided a complete bibliography, but only a list of the books and articles (I have unblushingly included certain of my own), which I have had constantly close to hand, while composing this work, and wish to be also within the reach of my readers, so that they may control and complete my assertions. I judged it useless to refer to it every minute. I have cited in the text only those works, which do not figure in the list and which I could only summarise imperfectly. I cite the majority of my authors without referring to them and thus I may have contradicted them (myself included) without proclaiming the fact. This is neither inattention nor a disposition to slight my sources. Experts will judge whether the opinions which I have expressed here are the best.

Nor have I given the sources of my examples, the majority of which have been borrowed from the authors in question. I shall be satisfied, if I have not materially erred in my choice, interpretation or transcription.

The exposition owes much to my friends. First of all to Prof. Helmer Smith. Perhaps so exacting a researcher, so severe a critic of detail may not be satisfied with a work in which so many questions are only lightly touched on and so many solutions are only provisional. May I, however, say here that he has largely collaborated with me, not only by revising everything connected with Pali and Sinhalese, languages of which he possesses an unrivalled knowledge, with particular care, but also by constant information of an abundance and value, known to his correspondents alone. Had it not been for his generous and learned cooperation, much of what has been said here would have been said worse or not at all.

Messrs. Renou and Benveniste have characteristically allowed me to profit liberally from their counsels and criticisms. They have read my manuscripts, the former the whole of it (not without supplying valuable additions) and the latter in part. They know, as I know, what the manuscript has gained from this revision. I alone know what confidence I have gained from this revision. To Mlle Nitti I owe assistance, which is obviously valuable, but, as coming from her, is unique.

[added by the author after the completion of the revised translation].

Finally, I have to thank Mr. Alfred Master, who has not only taken the initiative (flattering to me) of this translation, but whose observations have allowed me to eliminate a certain number of blemishes. I have also let my readers profit from suggestions due to the kindness of Prof. Turner.

I. THE OLD VOWELS

The vowel system of ancient Sanskrit is closely akin to the Indo-iranian system. It comprises short and long *a, i, u, ṛ* (and in addition *ḷ* in the single root *kḷp*, Av. *kərəp-*) and diphthongs in which *e* and *o* are included on the same footing as *ai* and *au*. There is perfect agreement with Iranian as regards *a* (from IE *a, e, o* and nasals functioning as vowels), *i* (IE *i*) and *u*:

ᵃa	Skt.	*ajati*	Av.	*azaiti*	Lat.	*agit*	Sk.	*mātár-*	Av.	*mātar-*	Lat. *māter*
ᵃe		*asti*	OP	*astiy*		*est*		*mā́*		*mā*	Gk. *mḗ*
ᵃo		*pátih*	Av.	*paitiš*	Gk.	*pósis*		*gā́m*		*gąm*	*bôn*
ᵃṇ		*a-*		*a-*		*a-*		*jātáḥ*		*zātō*	Lat. *(g)nātus*
ᵃṃ		*dáśa*		*dasa*		*déka*		*kṣā́ḥ*		*zǎ*	Gk. *khthṓn*
ᵃi		*ihi*	Ga.	*idī*		*ithi*		*jīvá-*	OP	*ǰīva-*	Lat. *uīuus*
ᵃu		*úpa*	Av.	*upa*		*hupó*		*bhrúḥ*	Per.	*abrú*	Gk. *ophrûs*

Further, Skt. *ā̆* is substituted in certain conditions for IE short *o*, again an Indo-iranian idiom: Gk. *ákmona*, OP *asmānam*, Skt. *áśmānam*.

In initial syllables Sanskrit *i* from IE *ə* corresponds exactly to Iranian:—Skt. *pitár-*, Av. *pitar-*, Lat. *pater*; but only Sanskrit preserves it medially:—*duhitá*, Gk. *thugátēr*; Ga. *dugədā* dissyllabic, Av. *duɣδa* with assimilation by voicing of the contiguous consonants. Otherwise, it was a feeble phoneme and was not only lost before a vowel as in Indo-european: *ján-ana-* masc.
p. 30 creator, cf. *jani-tár-*, but also assimilated to and merged in a preceding *y* (*kṛītá-*, cf. Gk. *pria-sthai*) or *w* (*pūta-* cf. Lat. *pūrus*). It is changed to *a* only before a following *y* by a kind of preventive dissimilation: *dhá-yati* he sucks, *dhenú-* milch cow (Av. *daēnu-* "femina", she who gives suck).

Other kinds of Skt. *i* and *u* correspond to an Indo-european vowel of fluctuating timbre, which is variable in Indo-iranian. To start with, it is a matter of the vowel resonance of a semivowel situated between a consonant and vowel. The facts are clear,

especially in the case of *°r: gurú- heavy, Av. gouru-, Gk. barús; giri- mountain, Av. gairi-. This resonance combined with IE ə gives a long vowel in Indian, which now fails to correspond to Iranian: dīrghá- long, Av. darəγa-; pū́rva- former, OP paruva-, Av. paourva-. This divergence is all the more remarkable, because here Indian ĭr, ŭr closely recall the subsequent treatment of *r̥ in Iranian.

This r̥, in fact, survives as a complex short vowel in Sanskrit, while in Iranian first the vowel element is distinguished and then the syllabic consonant: Av. ər(ə), OP r (to be read °r) and ar-initially; pr̥cchāmi I ask, Av. pərəsā Pers. pursam, r̥ṣṭí- lance, Av. aršti, Pers. x-išt (where iš represents r̥š). Sanskrit, therefore, is here definitely more conservative then Iranian.

Moreover, from the differences of the pronunciation of a syllable there results a difference of "weight", and this is of importance in languages with a precise prosody. Indian alone preserves the ancient quantity in this case.

There is no inherited long r̥̄ in Sanskrit. It exists only by reason of an innovation due to morphological analogy, as in gen. and acc. pl. pitr̥̄ṇā́m, pitr̥̄n; nr̥̄ṇā́m, nr̥̄n like devā́nām, giriṇā́m, vásūnām, devā́n girī́n vásūn. The Veda still retains the old form in these nouns: narā́m like Av. dugədr-ạm and Lat. patr-um.

p. 31   From the practical point of view there is only one true vowel in this group, long or short a, which is either the centre of a syllable, or the vowel element of a diphthong. I and u, on the contrary, are eminently the vowel forms of y and v, just as r̥ is of r: i-máḥ; y-ánti, sunu-máḥ: sunv-ánti like bíbhr̥maḥ: bíbhr-ati; similarly dyú-bhiḥ: diváḥ, syū-tá: sī́v-yati. It cannot be said, however, that i and u always play the same part as r̥.

Indeed, although, according to the grammarians, the first element of the diphthongs ai and au is at least as short as the second, they represent diphthongs with the first element long, as in Iranian: dat. kasmai to whom, but Av. kahmāi, cf. Gk. tôi. They are resolved into ā plus y or v (naúḥ: acc. nā́vam) and correspond, therefore, not to ar, but to ār. The Indo-iranian diphtongs ai, au are preserved in early Iranian, but in the very earliest Sanskrit they have already begun to coalesce.

	Av. aēsmō	cf. Gk. aithō	Skt. édha-
	vaēdā	oîda	véda
	aēiti	eîsi	éti
OP	aitiy		

Their primitive character is seen from their quantities, which are

consistently long, and from the fact that they are resolved before
a vowel: subj. *áy-ati*.

E and *o* are found also representing **az*, which is preserved in
Iranian; *e* medially and initially (*nédiṣṭha-*, nearest, Av. *nazdišta-*;
edhí for **azdhi*, cf. Av. *zdī*), final *o* (RV I 26.7 *priyó no astu* let
him be friendly to us; and compounded: *máno-java* swift as thought,
and before certain endings: *dvéṣo-bhiḥ*).

It goes without saying that so simple a picture of the phonemes
does not give a complete idea of the variations of pronunciation.
For example, even the grammarians have noted that *a* was more
closed than *ā* and this is confirmed in several ways, particularly
by the oppositions of timbre, which nowadays replace the ancient
oppositions of quantity, e. g. Bengali *å*, *o* opposed to *a* (written *ā*),
or European Romany *e* opposed to *a*.

The early transcriptions of the Greek geographers vary. There
are a certain number in which Gk. *a* is equivalent to short *a*:
Gággēs i.e. *gangēs*, *Táxila* (*Takṣaśilā*), *Sandrákottos* (*Candra-*
gupta), *Dakhinabádēs* (*Dakṣiṇāpatha*).   Arrian, on the other hand,
has *Kambistholoi* (*Kāpiṣṭhala*), but this notation occurs
particularly at the end of the first element of compounds,
Erannobóas, in which, however, *o* also denotes *ā* under the influence
of the adjoining *v* (*Hiraṇyavāha*) ; *Sandarophágos* (*Candrabhāgā*) ;
Taprobánē (*Tāmraparṇī*).   It has also been remarked that
Ptolemy employed it for eastern countries, thus recalling the
Bengali of to-day (S. Lévi, *Ptolomée, le Niddesa...*, Études Asia-
tiques EFEO, II, p. 22). Finally, Strabo has *Dérdai* (Ptol.
Darádrai), Arrian *Méthora* (Ptol. *Modóura*); and the Periplus has
even *Kalliena* beside *kalleanós lithos* and *-nagár*.

A and *i* are found exchanged in proper names, especially when
the Brahman tradition gives way to some other : ŚBr. *Naḍa*
Naiṣidha, MBh. *Nala Naiṣadha ;* Skt. *Mucilinda*, Pa. *Mucalinda ;*
but Pali has *i* in *Milinda* for Gk. *Ménandros*.   There are also
Kuśalava- and *Kuśīlava-*, *Kauṭalya-* and *Kauṭilya-; Śātavāhana-*
and *Śālivāhana-*, Pa. *Tapusa-* and the plant name *tipusa-*, Skt.
Tripuṣa, a proper name, and *trapusa-* in both uses.

Middle Indian and the modern languages, which follow it,
afford a number of cases in which *i* replaces an earlier *a*; Pa. *tipu*
tin (AV *trápu*), Pa. Pkt. *miñjā* marrow, cf. Sind. *miñ* (*majjan-*),
Pa. *iṃg(h)āḷa-* coal, etc. (*aṅgāra-*), Hin. *khin*, *khan(kṣaṇa-)*,
kin(ungli) little (finger) (cf. *kanyā*, *kaniṣṭha-*), *gin-* count (*gaṇ-*),
jhigṛā dispute, *piñjar* cage, beside *jhagṛā*, *pañjar ; deṛānā* beside
ḍarnā to fear (*dara-*), *meṇḍak* frog (*maṇḍūka-*); Beng. *cib-*

chew *(carv-)*, *chilkā* bark *(challi-)*, *khejūr* date-tree *(kharjūra-)*, proved by the Santali form *khijur*. This is the more remarkable, as it occurs in a language in which *a* is pronounced *ā* or *o*, etc. We catch a glimpse of the influence of gutturals and particularly palatals. Similarly *a* is palatalised regularly by *h* in Hindi and Panjabi, whence *rœh-* written *rah-* remain, Sind. *kihāni* story, opposed to Hin. *kahāni (kath-)*.

If, as it seems, *a* had a general tendency to become palatalised, it is tempting to connect with it the Dravidian forms of the type Tam. Kan. *mig-* great *(mahā-)*. Some of the forms at any rate do definitely correspond—Kan. Tam. *teppa-* raft, Periplus *tráppa(ga)*, Guj. *trāpo;* Kan. *menasu*, Tam. *miḻagu* pepper, Skt. *marica-*, cf. Hin. *mirc*.

The alternation RV *Śutudrī* Ep. Skt. *Śatadrū* is exceptional. As. *udupāna-(uda-)*, *oṣudha-(auṣadha-)*, *u(c)cāvuc(c)a-* (Pa. Skt. *uccāvaca-*), Pa. *pukkusa*, *nimujjati(majj-)* are due to the labial context. This reminds one of the fact that in Middle Indian *r̥* normally ended up as *a* or *i*, especially as *i* at first, but only as *u* in the vicinity of labials. This is true also for the vowel resonances from semivowels in Sanskrit: *tiráḥ*, *hiraṇya-*, but *puráḥ* and opt. *murīya* from *mriyate; giri-* but *gurú-*. When a vowel, is inserted before *h*, it is most frequently *i*: MS *maliháḥ:* TS *malháḥ-*; sometimes it is *a*; Pa. *arahā* from *arhant-*, explained as "killer of enemies" *ari-han-*, but *u* is not found in this connexion.

p. 33 The grammarians do not indicate any difference of pronunciation between short and long *i* and *u*. But besides nouns like *Kirrâdai*, *Surastréné* of the Periplus, we find at an earlier date *Sandrákottos (-gupta-)*, *Palibóthra (-putra-)*, *Méthora (Mathuā)*, *Erannobóas (Hiraṇya-)* and in Ptolemy *-gerei* or *-gērei (giri-)*. We find, on the other hand, *Agathukreyasa* "Agathocles", on coins and *Turamaya* "Ptolemy", in Asokan. There are, then, indications that short *i* and especially short *u* were more open then the corresponding long vowels. This fact, no doubt, accelerated the opening of the central vowel in Pa. *āyasmant-* as opposed to *āvuso (āyuṣmant-)*, *pana* "on the contrary" (cf. Mar. *paṇ*, Beng. *puṇi*) beside *puna(r)* "again", which retains the form as well as the meaning of the Sanskrit. Nowadays it is rarely found except medially in weak position. Gujarati alone extends the principle e.g. *maḷ- (mil-)*, *lakh- (likh-)*, *hato* (Mar. *hotā*).

There is nothing, moreover, to show that the pronunciation of *e* and *o* was uniform. According to the Prātiśākhya of the Atharveda I 34-36, it seems that *e* and *o* were almost as open as *ā* and more so than *a*. This, however, is apparently contradicted

by Taitt. Prāt. II 13-14. The two pronunciations can be
explained as arising from the old diphthong, the elements of which
were either drawn together (as *au*) or kept apart by differentiation
(as *áu*, whence *áð*).   In modern times Gujarati distinguishes the
e and *o* derived from Pkt. *e* and *o* from the *e* and *o* which sprang
from Pkt. *ai* and *au* in hiatus, by the extent of their opening,
the latter being the more open (Turner, *As. Mukherjee Jubilee
volume*, p. 337).

In any case, Skt. *-o* from *-au* and *-o* from **-as* have not fared
alike.   Vedic sandhi opposes *mána-ṛṅga-* to *gáv-iṣṭi-* (from *manas-*
and *go-*) : *-o* arising out of **az* is sometimes resolved into *-ay*.
It ends at last as *-e* in final position in eastern Middle Indian.
In the non-western inscriptions of Aśoka Skt. *-aḥ* is always
represented by *-e: devānaṃpiye(-priyaḥ), lājine (rājñaḥ), ne
(naḥ)*, etc.   But a compound like *vayo-mahālaka-* and a proclitic
like *lato* retain the Sanskrit form like the *o* which has sprung from
a plus *u* in *no* not, *kho* (cf. *khalu*).   There is apparently the same
relationship in the Niya documents (see. p. 8).

Variations of this type, having no grammatical importance,
were not noticed or, at least, were not recorded.   The vowel
system of Sanskrit is therefore meagre.   It is, however, less so
than Indo-iranian, since by reducing the old diphthongs
possessing a first short element, it brought into being a new *e* and
o, at least in their long form, which was missing in Indo-iranian.

But from the point of view of quantity, which is a basic element
p. 34   of the old phonetic system, the distribution of these phonemes is
irregular.   *A*, *i* and *u* alone are both short and long; *ṛ* becomes
long only in certain endings, on account of morphological analogies.
Finally there are no short *e* or *o*.

The methods of employing them are similarly ill-matched.
A is merely a vowel, *i*, *u* and *ṛ* are semivocalic; *e* and *o* are diph-
thongs resolvable into the elements *ay*, *av*, which should normally
come from **ai*, **au*, but *ai*, *au* resolve into *āy*, *āv*.   In a general
way the alternations, which play such a great part in the language,
do not agree with the phonetic system.   Compare, for example,
the relationships of the phonemes in the morphologically equivalent
groups of *ṛ/ar*, *a* (otherwise a pure vowel)/*an*, *i/e*, *i* (IE *ə*)/*ā*
etc., and one might easily add to these disparities.   Further,
the phonemes admit of a variety of alternations.   Thus *i*, a vowel
interchangeable with *a*, so far as it derives from IE **ə*, is also
interchangeable with *y*, not to speak of the possibility of its
emerging from *ṛ* in *giri-*.   In such a complicated system which
worked so irregularly, radical changes were only to be expected.

II. SUBSEQUENT EVOLUTION

1. Loss of phonemes

The want of balance in the application of the vowel system of Sanskrit explains why in spite of its simplicity and apparent stability (for in the whole of modern Indian hardly any new phonemes have made their appearance), it has been extensively remoulded.

Vocalisation of r:

The first change appears in the elimination of r. Here Indian in common with Iranian and the other Indo-european languages, has lost a complex phoneme, which comprised consonantal elements even in the vowel stage. The problem was solved in Iran and elsewhere by the development of a group consisting of a vowel plus r, but in India a different solution was found. Only in India was the quantity preserved at the expense of articulation, according to a method utilised only for the nasals in Iranian and Greek and, of course, for *i* and *u*, which caused no difficulties.

The fact that r was replaced in pronunciation by a pure vowel and not by a diphthong or a group forming a syllable, contributed to the prolonged preservation of its symbol in writing. In any case, and the point is important, the Veda already records *u* representing early r. It occurs in the endings of the gen. sg. *pitúḥ* father's *(*pitr̥-s)* cf. Av. *nərəš (*nr̥-s)*, 3 pl. pf. *cakrúḥ* they made, cf. Gath. *ǎnharə* they were, *čikōitərəš* they were preoccupied (see Meillet, *Mélanges d'indianisme...*, S. Levi, p. 17). Normally a phoneme is affected first when in final position. But cases also occur in which the resulting vowel was recorded in medial position, where r was not protected by the operation of alternation and is traceable only by the etymologist: *vikaṭa-* monstrous *(-kr̥ta-)*, *niṇyá-* intimate cf. Gk. *nérteros* lower, infernal, *múhuḥ* suddenly (Av. *mərəzu-* short, see *Donum natalicium Schrijnen*, p. 369), cf. also *gehá-* beside *gr̥há-* house. Traces are also found of r plus a vowel, which again preserves the quantity of the syllable: *krími-*beside *kr̥mi-*worm, cf. Pers. *kirm*.

These usages are the same as those found in Middle Indian and Neo-indian, or, it would be better to say, these characteristic Indo-aryan usages are attested under favourable conditions by the Vedas and are subsequently generalised in the later stages of

linguistic notation. The Iranian type—vowel plus *r*—is found only in the unsettled pronunciation of Sanskrit words in modern times (Beng. *amirta* beside *amrita* and *amrata*; similarly *ṁrijā* for Pers. *mīrzā*); also in some doubtful readings of Aśoka's Shahbazgarhi inscriptions, in which one might read **murgo*, etc. (Michelson, *JAOS*, XXX, p. 82, but see Bloch, *BSOS*, VIII, 420, where the text has *mrugo*, cf. *dhrama-=dharma-*). But it must be admitted that this is the only instance. Khowar *orċ* bear, which must be distinguished from Panj. *ricch*, Mar. *rīs*, etc. and also from Waig. *ōċ*, Kati, Ashk. *īċ*, Pash. *īc̣*, *āc̣*, Shina *īc*, is too isolated to be taken into account here.

The use of *r* plus vowel, as shown in Ved. *krimi-*, is perhaps attested in Asokan *(mruga-, mriga-)* and in Pali when in contact with labials, e.g. *brūheti* developes (for the *ū* cf. *paribbūḷha-*, Skt. *parivṛdha-* provided), *brahant-* (for *bruh-* in imitation of *brahaṭṭha-*, Skt. *barhiṣṭha-*), *rukkha-* (and *rakkha-* found once); cf. also Dutr. *prudhi* against Pa. *puthu (pṛthak)*. But Pa. *pucchati*, *vicchika-*, *accha- (pṛcchati, vṛścika-, ṛkṣa-)* show that anyhow these are exceptions. *Ri* is met with initially in Prakrit in *riddhi-, risi-, riccha-/rikkha-* etc.; but *isi-, accha-* also exist, cf. the Pali and Jaina compound *mahesi-*. And, although we find traces of it in modern Indian (cf. the names for "bear" cited above), this usage is exceptional and the substitution of a simple vowel for *ṛ* remains the normal practice in Middle Indian and Neo-indian, not excluding the languages distant from the centre. This substitution already existed in Vedic and was extended in classical Sanskrit (*krosṭṛ* jackal, alternating with *krosṭu*, etc.). It is impossible to predict the colour of the vowel, except in the vicinity of a labial. Asokan (at Girnar) and Marathi later prefer *a*, which is unknown to Sindhi. *I* is the most usual substitute.

Elimination of Diphthongs.

The break in the Indo-iranian system of diphthongs caused by the creation of the vowels *e* and *o* is the first stage in a development, which in its turn affected the *ai, au* of Middle Indian and at the same time destroyed the morphological value of the double gradation *i, e, ai; u, o, au*.

We have seen that the *a*, which was the first element of the Indo-iranian diphthongs, *ā, āu* had already lost its original quantity in Sanskrit. The resulting *ai, au* were in their turn amalgamated with *e, o* in Middle Indian: As. *kevaṭa- (kaivarta-)*, the ending of the obl. fem. sg. *-ye (-yai)*; *potra- (pautra-)*; Pa. *vera- (vaira-)*;

pora- *(paura-)*, *ubho (ubhau)*, *ratto (rātrau)*. Similarly *ai au* resulting from *ayi aya ava avĭ* behave like *ai au* with which they become identified, for Aśoka writes at Girnar *thaira- (sthavira-)* and *traidasa (trayodaśa)*, which are written in Pali *thera, terasa*. So also in cases of epenthesis: As. *samacairaṃ* for Shah. (=Pali) *samacariyaṃ* supplies the intermediate stage, which preceded the Pali type *acchera- (āścarya-)*, *ācera- (ācārya-)* and the Pkt. adjectival formative *-kera- (kārya-)*, which was to prove so popular in Old Gujarati, Romany, etc. as a suffix for adjectives of possession. Finally, *a* separated from *i*, *u* by a syllabic barrier combines with them, when this barrier is removed. We already find *co(d)dasa (caturdaśa)* with dissimilation of the dentals in Asokan at Nigliva and the process is made clear by the Topra forms: *catu(p)pade* quadruped, *cātummāsaṃ* four-monthly, and *cāvu(d)dasa-* fourteenth, with the consonant provisionally reduced to a transitory fricative. In the same way we have Pkt. *-ai*, modern *-ai* or *-e* for the 3rd sg. of verbs, Slt. *-ati*; Pkt. *-ao*, Braj *-au* and *-o*, Kash. *-u* for the nom. sg. of enlarged nouns, Skt. Pa. *-ako*; and from *bhaginī* sister, Hin. *bahin*, Panj. *bainh*, Sind. *bheṇu*, Kash. *běñě*.

In the case of a vowel plus *r*, the *r* was assimilated before a consonant like every other consonant preceding another.

p. 37 The case of nasals is more complicated. When they precede an occlusive, their articulation is adapted to it: RV impv. 2nd sg. *yandhi* from *yam-*; the same thing applies before dropped consonants, including even sibilants: aor. 2nd 3rd sg. *ágan* (*gant* and *gans*, no doubt through an intermediate form *gants*, cf. p. 88), gen. sg. *dán* of the house *(*dams)*.

Before a continuant nasal vibrations penetrate the adjoining elements; a *y* is shaded into *ỹ* nasalised; and a vowel before *h* or a sibilant develops a final nasalised portion, which becomes a diphthong with the preceding portion. Thus the anusvāra in *maṃsate* expresses *aṃ* in *maaṃsate* from *man-* to think. According to certain writers the vowel is also nasalised before an occlusive, but this is an isolated doctrine. The general rule opposes, for example, *anta- aṅka-* to *aṃsa- aṃhas-*, just as in Polish *kęs*, *kęt* are pronounced *kẽs*, *kont* (Meillet-Grabowska, *Gr. polon* § 10). Before a double nasal in Asokan orthography, there seem to be traces of nasalisation similar to the southern French *ãne* for *année*: *aṃna-*, *aṃñatra*, *puṃña- (anya-, anyatra, puṇya-)*.

The vowel *i*, which is less tolerant of nasalisation than *a*, tends to become a single long vowel: Pa. *sīha- (siṃha-)*, As. *-vihīsā*

(*himsā*), Skt. *vrīhi*, an isolated word of popular origin from Ind.-ir. *wrinjhi*, Pers. *birinj* (*Études asiatiques...* EFEO, I, p. 37); but Pa. *vīsati* may come directly from Indoeuropean: Av. *vīsaiti*, Lat. *uīginti*. It is Skt. *vimśati-* which makes difficulties.

When final consonants are dropped in Middle Indian, the occlusion of nasals is lost and a resonance remains in the vowel; Pa. *aggiṃ* from *agnim*, *jīvaṃ* from *jīvan*, *bhavaṃ* from *bhavān*, Pkt. AMg *balavaṃ* from *balavān*.

At first these medial and final diphthongs are treated as such from the point of view of quantity; they are reckoned as long in early prosody. Afterwards they share the fate of the old long vowels, they are shortened when final in Buddhistic Sanskrit and in long words in late Middle Indian: Bhav. *sihāsana-* for *sīhāsana-* (*simhā-*), etc.

2. Alterations depending upon position in the word

With some few exceptions the timbre of vowels was from this time forward consistently maintained. An *a, i, e, u* or *o* in Sanskrit generally recur as such in, say, Marathi or Hindi. The rhythmic system, on the contrary, was modified.

In Sanskrit the quantity of vowels is always strictly regulated. There are short and long vowels and the latter are considered to be double the former. The "weight" of the syllable involves a different idea; a syllable with a short vowel may be heavy, if the vowel is followed by two consonants. The variations of quantity admitted in the old prosody apply particularly to morphologically distinct types. We mays cite as examples the final vowels pertaining to certain endings (*śrudhĭ; átră*) or to certain first members of compounds (*viśvā-mitra-*) and to morphological elements treated as members of compounds (adjective stems followed by the superlative suffix: *purŭtáma-* and reduplications). This is due to a tradition of Indo-european, in which the alternation of "weight" in syllables plays an important part; *hatá măkhám: hatá vṛtrám* ($\cup\cup-\smile$); *vāvṛdhé: vavárdha; bhárīman-* food, *bharítram* arm. The same tendency allows a short vowel to be dropped exceptionally in very favourable circumstances, as when labials are in contact: *kṛṇmahe, manmahe* for *kṛṇu-, manu-;* or when the *i* in dissyllabic roots is suppressed as in *jánaḥ* opposed to *janitá;* whence *jánmanā* beside *jánima*. This tradition survives in Middle Indian in the lengthening of vowels at the 'seam' of compounds: Pa. *jātĭmaraṇa-, diṭṭhĭgata-* and also the gen. *satĭmato*, and, indeed,

the nom. *satīmā (smṛtimān)*. But the converse shortening is also found: *taṇhagata-* from *taṇhā (tṛṣṇā)*, and *paññavā (prajñā-vān)*. There is, therefore, a real equivalence, which depends as much on the unsettled values of final vowels as on the rhythmic grouping of syllables.

The fact is that in Middle Indian vowel quantity is no longer maintained as rigidly as before by the grammatical sense or, in particular, by the operation of alternation. It depends in an increasing measure on the phonetic position of the vowels in a word which is controlled either by the manner of constituting the syllables or by the form and dimensions of the word.

A) *The syllable*

In the ancient system a syllable ending in a long vowel or one containing a short vowel followed by a consonant group are equally heavy: *tadā* ∪-; *tapta-* like *tāta* -∪. The situation does not change, when the consonants are assimilated: Pa. *tatta- (tapta-)* -∪. A syllable containing a long vowel and a following group was too heavy and was restored to the normal weight in classical Middle Indian. The starting point of the movement is to be found in Aśoka's Girnar inscriptions : beside *a(ñ)ña- (anya-)*, *yu(t)ta- (yukta-)* are found *rā(ñ)ño (rājñaḥ)*, *mā(d)dava-*
p. 39 *(mārdava-)* with the same opposition of vowel quantity as before incompletely assimilated groups of consonants: *catpāro (catvāraḥ)* as against *ātpa- (ātma-)*.

This stage lasted for a long time in the western zone. Sindhi gives evidence for it by opposing *vāgh*ᵘ *(vyāghro)* to *cak*ᵘ *(cakram)*, *rāt*ⁱ *(rātrī)* to *rat*ᵘ *(rakto)*, *kāṭh*ᵘ *(kāṣṭham)* to *aṭh*ᵃ *(aṣṭau)*; so too Panj. *rāt (rātrī)* and *ratt (rakta-)* and the Kash. *kāṭh (kāṣṭha-)*, *jāg (jāgr-)*, but *rat (rakta-)*. Ordinarily in Middle Indian the syllable was restored to normal weight by encroaching on the vowel; *ratti-* like *ratta-*; *kaṭṭha-* like *aṭṭha-*; *aññā (ājñā)* like *añña- (anya-)*. But exceptionally the same result was obtained by simplification of the double consonant, hence Pali *dīgha- (dīrgha-)*, *lākhā (lākṣā)*, *sota- (śrotra-)*, *apekhā (apekṣā)*, *sekha- (śaikṣa-)*, Jaina Pkt. *rāī (rātrī)*, etc., cf. p. 89.

E and *o* which were liable to be shortened in final position, were bound to be shortened also before a consonant group. The ordinary spelling of the type *jeṭṭha- (jyeṣṭha-)* is uninstructive. Spellings such as *aggihutta- (agnihotra-)*, *juṇhā- (jyotsnā)* are clear, if the existence of ĕ and ŏ, drawn closer to *i* and *u* by similarity of timbre, be presumed, but are not in themselves

evidence.   For, if pushed to it, we can suppose contamination
with a participle from the same root, like *huta-*, or with a word
of cognate meaning like *juti- (dyuti-)*.   Yet forms like *nekkha-
(niṣka-)*, *oṭṭha- (uṣṭra-)*, which cannot be explained etymologically,
do presume the short vowels in question.   And in this way we
can explain not only the above instances, but also derived words
from which every trace of vṛddhi has disappeared: *sindhava-
(saindhava-)*, *issariya- (aiśvariya-)*, *ussuka- (autsukya-)*.

It is evident what confusion in the old system of alternation
was caused by these equivalents, which were multiplied in classical
Middle Indian.   From the failure to preserve the guṇa, not only
did the derivatives, but even the inflexions themselves change
their   appearance.   New   oppositions,   indeed,   were   created   in
modern times, by their help: Hin. *ek* one: *ikaṭṭhā* alone—*dekhnā*
to see, *dikhānā* to make to see (an alternation of the root-vowel,
which is curiously enough, the converse of the Sanskrit altórna-
tion): *toṛnā (troṭayati)* to break: *ṭūṭnā (truṭyate)* be broken.

At this point, therefore, a new system comes into being, in which
ṛ no longer exists and the remaining vowels may be either short
or long.   The only difficulty from the practical point of view is
that *i* can be, at one and the same time, the short form of *ī* and *e*,
and *u* of *ū* and *o*, a confusion which is the more serious because *e*
and *ī*, *o* and *ū* are not homogeneous and are interchanged only
exceptionally.

It will be seen later that the Middle Indian geminates were
generally   simplified in Neo-indian.   When   this   was   done,   the
preceding   vowel,   from   whatever   source   it   originated,   was
lengthened, except in the western languages, as mentioned above.
In certain cases, perhaps, the change took place in the Middle Indian
period, cf. in Asokan the futures in *-īsati* of the Delhi pillars beside
those in *-i(s)sati*.   At   any   rate   the   change   is   regular   in   the
languages of the Ganges and of the Deccan: Hin. *āp (ātman-*, Pkt.
appa-), *rāt (rātrī*, Pa. *ratti-)* *āj(adya*, Pa. *ajja)*, *pāt (patra-*, Pa.
patta-), *mūt (mūtra-*, Pa. *mutta)*, *pūt (pūtra-*, Pa. *putta-)*; Eur.
Rom. *drakh (drākṣā)*, *maĉo (matsya-)*, both having the *a* of *gav
(grāma-)* and not the *e* of *ker- (kar-)*, etc.   Hence we get the Hindi
doublets   such   as   *makkhan: mākhan* butter *(mrakṣaṇa-)*, *baṭṭī*
and *bāṭī* wick *(vartikā)*.

In Singhalese only short vowels and single consonants remain.
The details of this development are unknown, but the distribution
of vowels before a nasal plus an occlusive seems to point to a
development on all fours with the one just mentioned, and the
vowel shortening would then be of recent origin.

The group of nasal plus occlusive, indeed, cannot occur under the normal conditions of consonant groups. Then again, the nasalisation of vowels, which took place in early times before sibilants, fricatives or aspirates only *(saṃsád-, vaṃśá-, saṃvādá-, sáṃhita-)* is not established before occlusives till much later and then only partially. The optional spellings with anusvāra in Sanskrit and the vernaculars do not express real facts. In the western group in which the nasal persists as a consonant, the vowel may preserve its quantity, as before a group of occlusives: Panj. *kānnā*, Sind. *kāno (kāṇḍa-)*; Panj. *rann*, Sind. *ranᵃ (raṇḍā)*; but Panj. *amb* beside Sind. *āmo (āmra-)*.

In other languages everything depends upon the voicing of the occlusive. In Marathi the vowel which is always long, except under learned influence, remains nasal and is followed by a nasal occlusive before a voiced consonant: *cãnd*. Before a voiceless consonant it was nasalised and was followed immediately by the consonant: *ãt*. In the end it has become denasalised, a fact not ordinarily recognised in spelling (for a recent experiment in this direction see, V. N. Sardesai, *Some problems in the Nasalisation of Marathi*, *JRAS*, July, 1930, p. 537). The formula is much the same in Gujarati. In the same way Singhalese opposes *aṅdura* darkness *(andhakāra-)*, *kum̐bu* pot *(kumbha-)* to *kaḷu* thorn *(kaṇṭaka-)*, *set* peace of mind *(śānti-)*, *käp-* to shake *(kamp-)* and even *mas (māṃsa-)*. This is also the Marathi distribution, except that Singhalese shortens long vowels.

In Hindi the tendency of the vowel to absorb the nasal is predominant: *jā̆gh (jaṅghā)*, *pă̆c (pañca)* but in a longer word *pacās =pañcāsat*, *pūjī (puñja-)*, *kā̃ṭh (kaṇṭha-)*, *pīṛī (piṇḍikā)*, etc. In one favourable case, the occlusive itself is lost: *cūm- (cumb-)*. The forms with a short vowel plus a nasal consonant are frequent, including, even those, no doubt, outside the influence of Sanskrit models, say, *pañc, piṇḍī*, etc. This is a development parallel to that of the doublets of the type *bātī: battī* noticed above (p. 40).

B) *The Word.*

Final vowels.

In consequence of the loss of the consonants, all words in Middle Indian had vowels for their finals. Later, the instability characteristic of the terminations of words affected these vowel elements. The only final long vowels remaining in the modern languages are those evolved from recent diphthongs. Otherwise, words end in almost inaudible vowels or bare consonants.

Traces of this change appear in the earliest Middle Indian records. In a small group of Asokan pillar records -*ā* from -*ā*, -*āḥ*, -*āt* is written -*a*, the primitive length reappearing when the word supports an enclitic: *siya*, *va* but *vāpi*. The quantity, however, is not strictly maintained in other inscriptions.

In Pali the spelling is conservative as, indeed, is generally required by the morphology, which is of an early type: *jāti* is singular, *jātī* plural, etc. But in the aor. 3rd sg., where there is an alternation with a different vowel, we regularly find a short vowel: *āsi* (*āsīḥ*, *āsīt*), *assosi*, etc. and accordingly, conversely, *acchidǎ*. H. Jacobi suggests that the celebrated formula *ye dhammā hetuppabhavā* should be scanned with a short *a* in the second word.

The nasal vowels fare likewise. At Girnar the acc. fem. sg. -*yātāṃ* (*yātrām*) occurs, but -*yātaṃ* is the form found elsewhere. Pali ·has *kaññaṃ* and *nadiṃ* (*kanyām*, *nadīm*) uniformly in conformity with *dhammaṃ* ànd *aggiṃ* (*dharmam*, *agnim*); similarly As., Pa. *dāni* (*idānīm*). So also As., Pa. gen. pl. *gurūnaṃ*, loc. sg. fem. *parisāyaṃ*; there is no question of any optional spelling of an element, which is long in any case because of its nasal quality, a fact normally taken into account ·in prosody. Indeed, the nasal quality is no longer indicated in expressions like *ariyasaccāna dassanaṃ* sight of the noble truths, *gimhāna māse* in the month of the hot weather, and even, without a governing link: Sn. 740 *dīghaṃ addhāna saṃsāraṃ* ever moving on the long road (of transmigration). From this point we find a number of endings in Prakrit of which the vowels nasalised or otherwise afford no certain clue to their etymology and also an option allowed in prosody of counting final nasals as either long or short (anusvāra or anunāsika).

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So far as -*e* and -*o* are concerned, Early Middle Indian furnishes no conclusive evidence, and it seems indeed as though these phonemes had made a more effective resistance. This is confirmed by the optatives in -*i* or -*e* and the nominatives in -*u* and -*o* of the Dutreuil du Rhins Ms, in which these vowels count as long: A³ 17 *garahitu* (Pa. *garahito*), *sadā*, *goyari* (*gocare*) *ratā*; conversely A³ 15 *bahǒ jāgarū*, 10 *bahǒ bhāsati* as against Cᵛᵒ 12 *bahǒ jano* (Pa. *bahujjanā*). Apparently the intention is to indicate that the timbre of the vowel is·obscured like the nasalised vowel in *dhamu utamu* (*dhammaṃ uttamaṃ*), *sabaśu* (Pa. *sampassaṃ*, Skt. *sampaśyan*), *ahu* or *aho* (*ahaṃ*). It is therefore possible that although -*e* and -*o* are scanned short at will in the Mahāvastu and in Prakrit

poetry, the timbre of the vowel may have at first been altered here. The obscuring of *-aṃ (-ā)* in Middle Indian in transit to *-u*, thus recorded at the time of the Dutreuil du Rhins Ms, was generalised in Apabhraṃśa and the modern languages.

The extension of the Middle conjugation, in particular, largely depends upon the phonetic equivalence *-ati, -anti: -ate, -ante.* This is only a detail, but it may be said that basically there are none but short final vowels in the modern languages. These short vowels have in their turn suffered a deterioration due to their position. This may be quite an old development, to judge from the spelling *Maheśvaranāg* on a seal of the end of the IVth C. (Gupta Insc., p. 283; see also, p. 125). It is even tempting to recognise traces in the legend in Greek characters on a coin of Nahapāna of the IInd c.: *rannio xaharatas nahapanas* (Master, *BSOS*, IX, p. 709). Hardly a whisper remains of them in some languages, but it is an articulated whisper. Sindhi distinguishes *ḍehᵘ (deśo)* from *ḍehᵃ (deśāḥ)* etc. Maithili keeps *-i* and *-u;* *ānh(andha-)*, but *ākhⁱ (akṣi)*, *bahᵘ (vadhūḥ)*, *păc (pañca)*, but *tinⁱ (trīṇī)*. The vowel disappears completely in the most barbarous forms of speech only (e.g. Kati *bå̆r (bhāra-)*, *dūs* yesterday *(doṣām)*, *byüm (bhūmi-)* and in the most civilised: Gujarati, Marathi (excluding Konkani), Bengali, Bihari (excluding Maithili) and, finally, Hindi and Panjabi. Further it must be noted that in the territory of the last two languages rustic speech is inclined to retain the final vowel, and, of course, in all metres the final consonant of a word is considered to carry an "*a* mute".

In Oriya, a neutral vowel may be added to all words ending in a consonant, thus recalling the movable final *u* of the southern Dravidian languages. Oriya, has actually, as we shall see, a Dravidian idiom, the relative participle, in its grammar.

The principle, therefore, may be laid down that except, in conservative rustic speech, vowels at the end of a word are or represent long vowels resulting from contractions. Some old long vowels exist exceptionally in words of grammatical importance: Mar. *jo (yaḥ)*, *āmhī* (Pkt. *amhe*); yet it should be remarked that these long vowels are probably only graphic, cf. Beng. *āmi*, Hin. *ham*. A real final vowel is considered long in Hindi and Marathi; hence Hin. *janvarī*, *maī*, *julāī*, names of months borrowed from English, *sentrī* (sentry), as opposed to *sikartar*, *sikattar* which makes too long a word, as the initial vowel alone is accented *(secretary)* and so the final vowel is slurred. In Kashmiri the adjectives are of the form *boḍᵘ* masc., great, *büḍü̈* fem. (cf. Hin. *barā*, *barī*), beside *ċur* thief *(coro, corāḥ)*, *rāth (rātrī)* and the loan words *dunyā* world, *nadī* river, or the ablative *ċura* (MI *corăo*).

Word rhythm.

The quantities of all vowels now existing cannot be wholly accounted for by etymology, even when syllabic structure is taken into consideration. Some vowels in the modern languages are, indeed, more substantial than others. Firstly, the vowel preceding a final consonant: Aw. pr. pt. *dekhat* seeing *(-anto)*, inf., *dekhab* *(-itavya-)* and consequently the vowels of monosyllables are always comparatively long. Secondly, the final vowel resulting from a diphthong (direct case, masc. in *-au*, *-o*, *-ā* from Pkt. *-ao;* 3rd. sg. *-ai*, *-e* from Pkt. *-ai*, *-ae*), even though it may be subject to shortening: Kash. *gur^u* horse, *gup^i* he hides, respectively. Similarly, the initial vowel is always preserved (except in the case of apocope: O. Mar. *bais*, Hin, *baiṭh* from *upaviś-*), but the quantity is unstable. Medial vowels, on the contrary, are usually feeble.

We find traces of hesitation in quantity as early as Middle Indian, but they can ordinarily be explained in other ways. Thus we have parallel formations in the case of *pavăha-* for *pravāha-*; or suffixes regarded as equivalent: thus Mar. *taḷẽ* implies Pa. **taḷaka-*, which is the correct way to scan *taḷāka-* in the Apadāna
(H. Smith), while Hin. Guj. *talāv* agrees with Skt. *taḍāga-*; Sind. *bilo*, Hin. *billī*, presume **biḍala-*, the other languages agreeing with Skt. *viḍāla-*; Pkt. *gahira-* confirmed by Hin. *gahrā*, etc., leads to the supposition that Skt. *gabhīra-* has assumed the suffix of *sthávira-*, *śithirá-* etc.; but one could hardly call on *kuñjara-*, *īśvara-* to explain Pkt. *maṃjara-* beside *maṃjāra- (mārjāra-)*, Pkt. *kumara-* beside Skt. Pkt. *kumāra-* confirmed by Guj. Hin. *kũvar* prince, against Guj. *kũvāro*, Hin. *kũvārā* unmarried. It has been remarked (Leumann, *Festschrift Jacobi*, p. 84 s.) that *āṇia-*, *samaṇia-* are found in Hāla beside *ṇīa- (nīta-)* and *uvaṇīda-*; this is because *āṇei*, *samāṇei* are treated as normal causatives in *-ei*. In another connexion initial groups, which are simplified from Early Middle Indian onwards, can, when the word to which they belong is the second member of a compound, either remain simple or be geminated, thus conferring 'position': Pa. *nikhip-* or *nikkhip (nikṣip-)*, whence by analogy *paṭikūla-* or *paṭikkūla-*.

In modern times the word-rhythm dominated the etymological quantity. That is why Hindi has *apnā* one's own, and *putlī* doll, as against *āp* oneself and *pūt* son. The short vowel in Hin. Beng. *bij(u)lī* lightning is not properly the Skt. short vowel in *vidyut*, but that of Pkt. *bijjuliā*, if not actually a more recently shortened long vowel. This is certainly the case with *niclā* from *nīcā*. Accordingly an *e* cannot withstand the effect of a hiatus in Beng. *siulī (śephālikā)* nor an *i* in Sindhi, *siāro (śītakāla-)*.

In Marathi *kiḍā* derived from *kīḍ (kīṭa-)* and *purā* complete *(pūrita-)* are regular. Similarly Deccani Urdu has *miṭhā* for Hind. *mīṭhā*. Hindi is indeed conservative; it has *pāēṭ* where Panjabi has *puăd (pādānta-)* B. Das Jain, *BSOS*, III, p. 323. From this come the oppositions with morphological significance, Hin. *dekhnā* to see, *dikhānā* to show; *bolnā* to say, *bulānā* to call.

Medial vowels. Beng. *ṭhakran* is the feminine of *ṭhākur*, Hin. *bahnẽ* the plural of *bahīn* sister; in Deccani Urdu *bewᵃgān* is the plural of *bewā* (Pers. *bẽva*); another loan-word *mulāqāt* is pronounced *mulaqāt*. As against Hin. *hamārā* our, Maithili has *hamᵃrā*, Beng. *āmrā*. The effect of *-iā-* is the same as that of *-ia-*, at least in Hin. *ādherā (*andhikāra-* cf. Nep. *ādhyār)* and *aheran* anvil *(adhikaraṇī)*, see H. Smith, *BSL*, XXXIV, p. 115, for above forms. Further, Bengali can even lose *e* in proper names: *Gaṇsā (Ganeśa-)*, *Barnā (Varendra-)*.

Instances of this kind are very numerous in the spoken even more than in the written word, and are difficult to classify. It is
particularly difficult to distinguish cases of shortening and loss of characteristic timbre. There is evidently a struggle between rhythmic peaks with no clear principle governing predominance. It is instructive to compare Mar. *kāsav* and Sind. *kachū (kacchapo)*; Mar. *kāpūs* (for **kāpas*) and Hin. Guj. *kapās (karpāsa-)*; or Guj. *loḍhī* E. Panj. *lōhḍā* W. Panj. *luhāṇḍā (lohabhāṇḍa-)*. The point to be emphasized is that vowel quantity and syllabic weight depend upon the context.

We must also notice the appearance in a secondary form of supporting vowels, which often take the place of the former vowels, but are not derived from them: hence Beng. *gelās* glass, Hin. *janam (janma-)*. Particularly interesting is the appearance of vowels intended to avoid groups of three consonants: Hin. *samjhā* understood, *samjhānā* to explain: *samajhnā* to understand, Mar. *ulṭā* (Sind. *uliṭo*) upside down: *ulaṭṇẽ* to upset; and so in Gujarati and Hindi; but the grouping is different for the Nep. infinitives *ulṭanu*, Or. *ulaṭiba*.

In these cases it is clear that the vowels are subordinated to consonantal word-skeleton. A stronger contradiction to the Vedic system could hardly be found.

III. VOWEL NASALITY

In the course of the history of the language nasal vowels have appeared, which do not owe their nasality to their being followed by nasal occlusives. They owe it to the fact that the nasal resonance innate in vowels asserts itself in favourable circumstances and particularly in connexion with long vowels and *a* (Cinquantenaire de l'École pratique des Hautes Études, p. 61).

Thus from the time of the Vedas, certain final vowels of which the duration is half as much again as or even double that of ordinary long vowels (Skt. *pluti-*) are nasalised. Similarly with certain cases of *-a-* in hiatu (not only long vowels or vowels capable of being lengthened: I 79.2 *aminantăm̐ évaiḥ* were hastily transformed, occurs at the end of a tristubh). This is no doubt the origin of the pious interjection *om*, originally a simple cry *ô*. We have here more than one act of utterance, comparable to the nasal droning of Prakrit by Malabar actresses (Pisharoti, *BSOS* V, p. 309). Pāṇini himself authorises the nasalisation of *a, i, u* whether short or long, at the end of a sentence. This is carried

on to the modern period: Mar. 2nd. pl. in *-ă̐ (-atha), tarĩ (tarhi),* Sind. *prĩ (priya)-*. In the modern languages every long vowel, even when medial, tends to develop a nasal resonance : Mar. *kẽs (keśa-),* Hin. *ũṭ (uṣṭra-), săp (sarpa-), ăkh (akṣi), ŭcā (ucca-),* O. Hin. *tẽlᵘ (taila-).* These forms are irregularly distributed: W. Bengali, which has *puthi* opposed to Hin. *pothī (pustaka-),* writes *sāp* opposed to Hin. *săp*; but it is hardly possible to distinguish between the spelling and the pronunciation.

There are various indications that the equivalence of long vowel =nasalised vowel can be traced to Middle Indian, at least in the vicinity of a sibilant, *r(l)* or a palatal, that is to say, consonants not occlusive and so releasing the velum, which as the history of Indo-aryan shows, has only a weak tension. This, at least to some extent, is the explanation of the nasals in Pa. *ghaṃsati, haṃsati (ghars-, hars-), suṃka- (śulka-), aṃsa-, aṃsi- (aśri-)* and, conversely, the denasalised long vowels of Pa. *sīha- (siṃha-)* and of Skt. *vrīhi,* p. 37. To be noted especially are the nasals of Pkt. *aṃsu- (aśru-), paṃkhi- (pakṣin-), caṃch- (takṣ-), daṃs- (darś-),* etc., and modern forms derived from them (notice particularly Sind. *hañju, vañjhu,* where the nasal before the sibilant has generated an occlusive see, p. 87).

This process is developed further in the modern languages and

is carried beyond the old phonetic limits. You find not only Hin. *băh (bāhu-)*, but Mar. *pimplī* as opposed to Guj. *pīpar*, etc. *(pippalī)*. Cases of analogy must naturally be segregated like Nep. *ūbho (ūrdhva-)* by analogy with *ūco (ucca-)*, the nasal of which is found again elsewhere and Hin. *angīṭhā* furnace *(agniṣṭha-)* after other words in *ang-*, primarily *angār* coal.

Lastly come the vowels, which are nasalised through the influence of adjacent nasal occlusives. (i) At the end of the word: we find in Prakrit noun-endings the gen. pl. *-āṇã (-ānām)* and *-āṇā*, the instr. sg. *-eṇa* and *-eṇā*, the nom. neut. pl. *-āĩ* normally (with absorption of the nasal occlusive of *-āni* before *i*, cf. Aw. *barsaĩ*, but obl. *barsan* years, Braj *bālaĩ* obl. *bālan* words). In Apabhraṃśa the instrumental has also *-ẽ: narẽ;* and in the Bhavisattakaha the nasal is transferred to the feminine. In the same text every *-i, -u, -hi*, or *-hu* following a nasal is nasalised: 3rd. sg. *suṇaĩ* he hears. (ii) At the beginning of the word: *m* or *n* can nasalise the following vowel. You find *makkaṭa- (markaṭa-)* in Pali, but also *maṃkuṇa- (malkuṇa-)* whence Panj. *măgnū* but Hin. *camokan*. This is an isolated and even an astonishing example, inasmuch as later cases, even though they are only sporadic, occur when the following consonant is voiced: thus p. 47 Pkt. *maṃjāra-*, Mar. *mãjara- (mārjāra-*, Pa. *majjāra-)*; Bih. Hin. *mŭg* Kash. *mong*, Sgh. *muṅgu, muṃ*, but Mar. *mūg*, Guj. *mag*, Beng. *mug. (mudga-)*. A certain number of other cases are met with: Kash. *manz*, Sdh. *mañjhu*, Rom. *manj*, Sgh. *mända*, Hin. *mãjh (madhya-)* as against Aw. *mājh*, Mar. *māji*, Beng. *māj*; Sgh. *mäda;* Sdh. *muñjh:* Guj. *mujh- (muhyati);* Sdh. *muṇḍr*, Mar. *mūḍ*, but Or. Ass. *mud- (mudrayati*, Pkt. *muddei)*. And with initial *n:* Kash. *nonu*, Shin. *nanu*, Sdh., Eur. Rom. *naṅgo*, Hin. Panj. *naṅgā*, but Guj. *nāgo*, Mar. *nāgvā*, Or. *nāgnā (nagna-);* Hin. *nīd, nĩd*, Guj. *nīdar, nĩdar*, O. Beng. *nind*, Nep. Torw. *nin*, Eur. Rom. *lindr*, but Mar. *nīd, nid-*, Sgh. *ninda* and *-nidu*. H. Smith calls attention to the opposition of *digu* long: *nadigu* or *nadiṅgu* short, in Singhalese. The nasality is extended, where there are only vowels: Sdh. *nāĩ (nadī)*, Aw. *maĩ* as against *lui*.

These exceptional facts are of interest as confirming the tendency of the velum to relax, resulting in nasalisation of long vowels and, in certain endings, even of short vowels, as the most important consequences.

IV. ACCENT

In Vedic as in Indo-european the vowels were distinguished not only by the timbre and quantity, but also by the presence or absence of a rise in the voice, which is known as *udātta-*. This had otherwise no connection with and did not affect the other characteristics of the vowel or the make-up of the word.

All words were not accented. Certain words were accented according to their position or the part played by the clause in the sentence. Thus the verb did not receive the tonic accent, except as part of a formal or implicit subordinate clause and the vocative only at the beginning of a section of a sentence (Meillet, *BSL*, XXXIV, p. 122).

Only one vowel in the word received this tone, which gave the syllable no particular value. The place of the tone was not determined by the form of the word, but by morphological rules which were partly the same as in other Indo-european languages. Thus the alternation *pát, pádam : padáḥ* reproduces that of Gk. *poús, póda, podós* (but *śúnaḥ* has not the accent of Gk. *kunós*); the vocative *pítar* opposed to the nom. sg. *pitá* has, like Gk. *páter* opposed to *patḗr*, the accent on the first syllable. The opposition of the noun of action *éṣaḥ* haste, and the adjective *eṣáḥ* hasting, *ápaḥ* action, and *apáḥ* active, correspond to the opposition of Gk. *tómos* cutting (noun) and *tomós* cutting (verbal adjective); *pseûdos* lie, and *pseudḗs* liar, lying. The accent of the possessive compounds is on the first member in both languages: *rájaputra-* having a king for son, *ōkúpteros* swift-winged; the groups *ní-hita-, apóblētos* correspond, etc.

This very archaic system, which, indeed, includes a few variants, entirely disappeared after Pāṇini. Although some grammarians refer to it, it is noted in no text. In this respect Indian is opposed to Greek, in which one vowel with a high pitch and long quantity has taken the place of the former tonic and the rules of metre take into account the alternation of accented and unaccented vowels. To sum up, if the notation of the tonic vowels in early Sanskrit had been lost, an important characteristic of its make-up would have been wanting (of importance also for the study of Indo-european), but the actual inner history of Indo-aryan would have not been affected.

The question has been asked, whether this evolution was not

dominated by a new accent, that of intensity or stress accent, as
has been produced, for example, in Germanic and Czech, in which
it falls on the initial vowel; or in Armenian, Polish and Iranian,
in which it is governed by the ending of the word. Various
observers have recorded an accent of intensity in certain modern
languages with more or less precision. So far as definite formulas
have been reached, they differ from language to language. They
depend, generally speaking, on the quantity as well as on the
position of the syllables in the word. There is no need to discuss
them here. What is important is their divergency. Consequently,
it is not surprising that Middle Indian does not furnish any decisive
facts in favour of a regular stress accent in the vulgar tongue.
The very idea was unknown (it is noteworthy that in Pali *udatta-*
and *uḷāra-* are not used in any technical sense and *sara- (svara-)*
designates only a chant). The facts, which have been adduced
to prove a stress accent—according to Pischel placed on the old
tonic, and according to Jacobi on the first long vowel starting from
the end of the word—are open to other explanations, especially
rhythm. Metre remains either syllabic or quantitative; stress
accent for the phrase rather than for the word, appears only
independently in certain modern languages. It cannot, therefore,
be taken into account to explain the evolution of Indo-aryan up
to the present day.

p. 49   Mention must be made of a quite exceptional case of intonation,
which is all the more valuable, because we know its origin. In
N. Panjab (and also in the East, as far as the region adjoining
Delhi, according to a communication from B. D. Jain; in fact, the
Bangarū dialect has some phonological characteristics in common
with Panjabi v. *LSI*, IX 1, p. 253), the old voiced aspirated
consonants have lost their aspiration and *h* disappears: but the
adjacent accented vowels retain a trace of the aspiration in low
vibrations. Hence the vowel assumes a tone, which has its deep
element close to the position of the former aspirate: *sàukar (sādhu-)*
banker, *deòrā* (Pkt. *divaḍḍha-*) one and a half; *càṛ-* mount (Hin.
caḍh-) *diáṛā* day, cf. Sdh. *ḍihāḍo; kaḍá-* causative of *kád-* (Pkt.
kaḍḍh-) throw back. This finally resulted in the unvoicing of
the remaining initial voiced consonant: *kár* cf. Hin. *ghar*. This
characteristic recalls the alternation in Sino-Tibetan, in which
a very marked intonation accompanies a voiceless, and a weak
intonation a voiced consonant (L'intonation en penjabi, *Mélanges
Vendryes*, p. 57).

There is something of the same kind in Shina, in which the
accented syllable carries a rising tone; the native speakers call

the vowel, which carries it, long and in fact there are some vowels of composite origin: *dāri̯* boys *(dāraka-)* has not this tone, but *dāri̯* gates *(dvár̥a-)* has; *gāe* song *(gā-)* does not have it, but *gāi* ewer *(ghaṭikā;* intervocalic *r* having fallen) has; *dĩh* tiger, does not have it, but *dīh* daughter *(duhitā)* has; *baṣ* language *(bhāṣā)* does not have it, but *baṣ* lung (cf. Torw. *bariš* side) has; so *kā* pl. of *kāvŭ* bracelet, has the tone, which the normal plural *kāvĕ* has not.

Finally cases have been noticed in eastern Bengali (S. K. Chatterji, *Recursives*, p. 41 ; in *Indian Linguistics* I, 1) in which the stress accent is accompanied by a sharper intonation where an aspirated consonant has lost its aspiration (*b'at* rice, *k'anda* shoulder). It is the same phenomenon as in Panjabi.

It is evident that there is nothing in common between these recent phenomena and the morphological vowel-tones in Indoeuropean and Vedic Sanskrit.

CONSONANTS

Curiously enough, the consonant system of Indo-iranian has been preserved in India with greater completeness than in Iran.

(i) Indo-aryan alone of all Indo-european languages possesses four series of occlusives; voiceless, voiced, voiceless aspirated, voiced aspirated. The aspiration is so substantial, that when the aspirated consonants undergo change, it is the occlusion and not the aspiration, which is lost.

(ii) In the palatal series Sanskrit preserves in *ś* the palatalisation, which is lost in Av. *s*, OP θ; and Kafiri, apparently an Indian dialect, has preserved a phoneme still more archaic.

(iii) The Indo-european sibilant, which was reduced in Iran to an aspirate before a syllabic consonant or a vowel, was preserved almost universally in India till a late date.

(iv) Finally in India occlusives in groups, although they might change their point of articulation, preserved their occlusion, while in Iran they became fricatives. The only fricative in Sanskrit is *v*.

In its turn Sanskrit created an entirely new class of phonemes, the cerebrals.

I. OCCLUSIVES (INDO-EUROPEAN TYPE)

The labials and dentals and the occlusives and semi-occlusives derived from Indo-european labiovelars call for no remark:

Voiceless	Skt.	*upári*	OP	*upariy*	Skt.	*śaphá-*	Av.	*safa*
		pitắ		*pitā*		*yáthā*		*yaθā*
		kat	Av.	*kat*		*sákhā*		*haxa*
		cit		*-čit̬*				
Voiced		*barhíḥ*		*barəziš*		*bhárati*		*baraiti*
		dabhnóti		*dəbənaoiti*		*dhenú-*		*daēnu-*
		gaúḥ		*gāuš*		*gharmá-*	OP	*garma-*
		jīva-		*ǰīvā*		*hanti*	Av.	*ǰainti*

II. PALATALS

On the other hand the treatment of Indo-european prepalatals
p. 51 raises a nice point. Vẹdic differs from Iranian, which, again, is
not consistent:

śarád-	Av. sarəδ-	OP θard-
jóṣa-, joṣṭár-	zaoša-	dauštar-
hásta-	zasta-	dasta-

The Vedic treatment governs the later evolution of all known
Middle Indian and all the modern languages with the exception of
a small group, the Kafiri, which has forms apparently more archaic
than either Indian or Iranian.   In Kafiri *ċ (ts)* is found for the
voiceless palatal (also *š*, but no principle of distribution is as yet
evident).   This is, seemingly, the actual semi-occlusive, which
should have preceded the Indian and Iranian sibilants:

Kati *duċ* ten (but Waig. *dōš*, Ashk. *dus*)   Skt. *dáśa*, Av. *dasa*
    ċuĩ empty (Waig. *ċōn*, Ashk. *ċun*)   *śūnyá-* cf. Av. a-
                                                        sūna-.

The treatment of voiced consonants is reminiscent of Iranian :

IE *g'*   Kati *żoṭr* friend   Skt. *joṣṭar-*   Av. *zaoš-*
    g'h   *żira* heart   *hṛd-*   *zərəd-*

The labiovelars before IE *e* have a different treatment:

IE *gʷ*   Kati *žämi* sister's husband   Skt. *jāmi-*
    gʷh   *žär'* to kill   han Av. *jan*

There is, therefore, as in Iranian a distinction made between
two series, which are combined in Sanskrit.   The loss of aspiration
may be recent, as it occurs with every consonant: Kati *uṭi* to stand
(uṭṭhā-); *acūṭ* in three days (*caturtha-* fourth); *bəmåw* wasp
(bhramara-); *drigēr'* long *(dīrgha-)*, *dyūm* smoke *(dhūma-)*. It is.
met with elsewhere in the Indian portions of the surrounding
region.

The question might, therefore, be raised, whether Kafiri is Indian
or Iranian, but characteristics, which are definitely Indian are
present in its phonology and grammar.   It must then be an
Indian group, which has had a comparatively independent
existence and has preserved an archaism, which has been lost by
other languages.   It has been remarked above that Sanskrit *ś* is
more archaic than the corresponding Iranian sound at least as
regards articulation; and similarly *j* is, by reason of its semi-

occlusion, nearer to the original phoneme than Av. *z* and OP *d*.

To return to Sanskrit it is important to note that its complete series of semi-occlusive palatals is the result of remodelling. The *j*, which it includes, is etymologically not the voiced form of *c*, but of *ś*, which is placed in the sibilant class, while the aspirated palatals have a different origin. The surd *ch* to which Iranan *s* corresponds is, in medial position, counted as a double consonant and is usually so written. It goes back, in fact, to a group IE *s* plus palatised guttural:

Skt. *chāyá*	Pers. *sāyā*	Gk. *skiá*
pṛcchati	Av. *pərəsaiti*	Lat. *po <r>scit*

We have here, then, an assimilated group, the first evidence of a tendency characteristic of Middle Indian. It is thus that Skt. *paścā* (Av. *pašca* OP *pasā*) gives Pali *pacchā* and that in the early language we already find Av. *ṛcchárā* beside VS *ṛkṣálā* pastern. Here as in Middle Indian *cch* is the imperfectly occluded substitute for several groups containing a sibilant.

The voiced *jh* is similarly a double phoneme of late origin. The only word in the Ṛgveda which contains it, *jájjhatīḥ*, acc. fem. pl. referring to lightning-flashes, has been explained as a vulgarism equivalent to, *jákṣat-* laughing, from *has-*. This is then still another usage known to Middle Indian, which recalls Iranian, see p. 14.

The aspirated palatals, which complete the picture of the palatals and thus of all the Sanskrit occlusives, have then no original link with the non-aspirated palatals. Moreover, the old voiced aspirated palatal has lost all its occlusion and has been separated from the series, becoming voiced *h* and taking its place at the end of the alphabet after the sibilants.

The pronunciation of the palatals varied. In Sanskrit the Prātiśākhyas agree in defining them as produced by the application of the middle of the tongue to the palate. There is never any question of pronouncing them as *ṭs* etc. and so it is explained that the implosive takes the cerebral and not the dental form. Certain indications found in Middle Indian grammarians have given rise to the idea that the old pronunciation was restricted to the eastern region (Grierson, *JRAS*, 1913, p. 390); it remains a fact that Aśoka has *ciki(s)sā* at Kalsi and further to the East and *cikĭ(c)chā* (*cikitsā*) at Girnar in the West. In Singhalese *c* and *j* became *s* and *d* towards the 10th century, even between vowels (*satar* four, *rad* king) which seems to imply the pronunciation *ṭs*, *dz*. The

palatals of Singhalese are recent and are derived from dentals or

cerebrals followed by *y*.   We have seen that on the N.W. border
Kafiri has semi-occlusive dentals.   Kashmiri has *ċūr* thief *(cora-)*,
gaċh- go *(gacch-)* and *zĕv* tongue *(jihvā)*, *zāl* burn *(jvāl-)*; *j* appears
only in Iranian and learned words.   *Ċhaṭhᵃr* umbrella *(chaṭṭra-)*,
chod hunger *(kṣut)* may also be learned words; *chu-h* he is (Pkt.
acch-) could hardly be considered as one.

Shina has two series of palatals, one of which is the cerebral
developed from groups containing *ṙ* or *ṣ*: *cār* four, *majā* middle,
but *aċi* eye *(akṣi-)*, *ċeċ* field *(kṣetra-)*, *ja*·brother *(bhrātā)*.

III. CEREBRALS

Besides the dentals properly so-called, which are articulated
against the teeth or just above them, Indo-aryan possesses a
complete class of occlusives similarly pronounced with the point
of the tongue, which is, however, placed on the front part of the
palate with more or less retroflexion.   The two series exist also
in the non-Aryan languages Dravidian and Munda.

The Indo-aryan innovation is best explained in terms of the
use of the two classes in the indigenous languages.   This is without
doubt the most decisive fact in deciding the earliest Sanskrit
texts to be purely Indian.   The presence of cerebrals in Afghan
probably points to an Indian substratum.

The Aryan development which made the formation of the new
series possible, was the transformation of the old dentals in contact
with *š*, which was in its turn evolved from Indo-iranian *s* preceded
by *i*, *u*, *ṛ* and their diphthongs or by *k*.   So, for example, there is a
group corresponding to the Iranian *išt*, in which the final *t* is
adapted to the hush-sound.   Both these sounds are removed
from the class of dentals and assume the indigenous form of
cerebrals.   Indo-iranian *ž* becomes *r* in India, while *r*, old as well
as new, functions as a cerebral, see below p. 55.

Another source of the Sanskrit cerebrals are the palatals.   In
the period immediately preceding that in which the semi-occlusive
palatals took their Sanskrit form *ś j h*, these phonemes must have
been pronounced very nearly as *lš dž džh*, the first element of
p. 54 which tended to be assimilated to the second and then to assume
the form of a cerebral.   Now when the palatals became implosives,
this element alone remained.   Thus, for example, *ṣáṭ* Lat. *sex*,
Av. *xšvaš*, or the nom. sg. *viṭ* apparently derived from **viś-s*, but
actually from **viṭš(s)*, and the instr. pl. *viḍbhyáḥ* (Av. *vīžbyō*).
The type *dik* is the result of special conditions (Meillet, *IF*, XVIII,
p. 417).

This also accounts for the cerebral treatment in Middle Indian and after of the group *jñ* in which the articulation of the first implosive element (detachable in other forms in the learned words of the modern languages: Mar. *dñ*, Guj. *gñ*, Hin. Beng. *gy*) is predominant. For Skt. *ājñāpay-ati* Asokan has *ā(ñ)ñapayāmi* at Girnar, but *aṇapayami* i.e. *ăṇṇă-* at Shahbazgarhi; Pali has *āṇāpeti*, Asokan *āṇapayati* at Brahmagiri, a form declared by Kātyāyana incorrect in Sanskrit (for the simplification of the geminate consonant after the long vowel, cf. p. 89). Pali has also *āṇatti-* order, *paṇṇatti-* Buddhist doctrine, but *ñāpeti* cause to know, *aññā (ājñā)* perfect knowledge, *paññā* wisdom; cf. Shah. *ra(ñ)ño (rājñaḥ)* like *ñāti- (jñāti-)* descendant.

The same treatment of Skt. *ṇy* and *ny* is met with in Prakrit and later. It is difficult to say whether we have here Middle Indian *ṇ* assimilating a following *y* (just as we find at Girnar *hiraṃṇa-*, that is to say *hiraṇṇa-* from *hiraṇya-* beside *apuṃ ña-* and so *-puñña-* from Skt. *puṇya-*). It seems, however, more probable that the group was *ññ* to begin with. Indeed, *ñ* is generally wanting in the modern languages, cf. p. 71, but Sindhi, which has it, opposes *dhāñ^u (dhānya-)*, *riñ^a (araṇya-)* to *āṇ^a* submission *(ājñā)*; *dhāṇu, ruña, riṇu āṇa* (ND).

It is proper to mention here in connexion with Skt. *ñc* the Pali numerals *paṇṇarasa* fifteen, and *paṇṇavīsati, paṇṇavīsaṃ* twenty-five.

In Vedic the series of independent cerebrals is incomplete; there is in fact only one occlusive, the voiceless. The aspirated surd exists only when conjunct and in morphologically obvious cases: superlatives in *-iṣṭha-*, the derived subatantive *pṛṣṭhá-* (Av. *paršta-*), the reduplicated *tiṣṭhati;* but *jaṭhara-* and *kaṇṭhá-* (AV. *sahákaṇṭhikā*) have no good etymologies. If *nighaṇṭu-* which is not Vedic, could be derived with certainty from *nigranth-* the unexpected movement of the aspiration would furnish evidence of the awkwardness of *niganṭh-*. The simple voiced cerebral stop similarly exists only, when conjunct: *viḍbhiḥ;* when intervocalic, it comes near to *l* (Sköld, *Papers on Pāṇini*, p. 45) and in the Ṛgveda is denoted by the symbol used later for the cerebral lateral *ḷ;* the same is true for the aspirated form: *nīḷáḥ, vóḷhum*. This symbol is carried on into Pali. Later *-ḍ-, -ḍh-* appear p. 55 regularly, influenced mainly by the morphological system and by the needs of phonetic equilibrium: *voḍhum* like *dagdhum, ṣoḍhā* like *dvidhā* etc., partly also no doubt, because the actual spoken languages had really occlusive *ḍ, ḍh: uḍḍī-* etc. Further, some

of these cerebrals, not recognised by the system, persist in classical
Sanskrit in the form of *l: ali-* bee, but Pa. *aḷa-* crab's nippers,
Gk. *árdis* point (Lüders, *Aufsätze E. Kuhn*, p. 313: Renou, *Gr.
sanscrite*, p. 59, *Études de gr. sk.*, p. 130).   Vedic also possesses
a cerebral nasal, which results from the assimilation of the dental
nasal to *r ṛ ṣ* immediately preceding it *(várṇa-, tṛṇa-, kṛṣṇá-)*.
In certain cases these phonemes had disappeared in the prehistoric
period *(pāṇi-* cf. Gk. *palámē; puṇya-* cf. *pṛṇāti; ninya-* cf. Gk.
nérteros).   The nasal which is more sensitive than the occlusives,
feels the effect of *r* and *ṣ* even at a distance, so long as it is single
and intervocalic, that is, in the weakest possible position, and that
an occlusive or a sibilant involving a movement of the point of
the tongue does not intervene: *krámaṇa-, kṛpáṇa-, kṣóbhaṇa-,*
but *vṛjána-, rodhaná-, dárśana-*.   Some traces of this rule, which is
peculiar to Sanskrit, are still found in Middle Indian: As. Gir.
prāpuṇāti, Pa. *pāpuṇāti* and even As. Gir. *da(s)saṇa-*, but Pa.
dassana- from Skt. *dárśana-*; with double *ṇ:* Pa. *aparaṇṇa-*
vegetables, *pubbaṇṇa-* uncooked corn (first food).   In Panjabi
to-day the opposite procedure is applied: *-ṇ-* becomes dental
through the dissimilatory influence of *r: dhoban* washerwoman
(Skt. suffix *-inī*), but *kuhuraṇ* leper-woman, *guārṇī* village-woman.
The oldest cerebrals are therefore the dental occlusives in contact
with the hush-sounds and dental *n* affected by *ṣ* or *r*.

Further, the Veda has already examples of occlusives cerebralised
by an *ṛ* which has disappeared: RV *kāṭá-* hole (once in Book I),
beside *kartá-*; RV *káṭuka-* bitter, cf. Lith. *kartùs; vikaṭa-* monstrous,
cf. *kṛtá-* (both occur only once in Book X).   The relative novelty
of the treatment of the consonant in these words is confirmed
by the Middle Indian treatment of *ṛ*.   Later appear Br. *puṭa-*
fold, cf. Ger. *falt-; āḍhyá-* rich, cf. *ṛdh-* succeed; class. Skt. *naḷa-*
(nṛt-); *hāṭaka-* gold, cf. *hiraṇya-; kuḷila-* tortoise, and *kaṭākṣa-*
side-look (cf. Gk. *kurtós*) and other isolated words protected by
the obscurity of their etymology.

In Middle Indian the procedure, although lacking consistency,
becomes normal.   Thus Pali has *sukaṭa-* beside *sukata- (sukṛta-),*
visaṭa- and *visata- (visṛta-), haṭa-* only for *hṛta- (hata-* is the
participle of *han-)*, but *mata-* always for *mṛta-*.   It is true that the
commentators recognise the participle signifying "dead" in
p. 56 *maṭaja-*, the name of a weapon (Iran. **marta-ja* man-killer?).
From *rd(h)* come *chaḍḍ- (chard-), vaḍḍh- (vardh-)* cf. As. *vaḍḍhi-*
(vṛddhi-).   The variants are utilised for semantic purposes: *vaṭṭ-*
is used for the idea of turning, *vatt-* for existence or custom; but

cakkavattī, a learned word, has the dental (Jaina Prakrit has *cakkavattī*), while *cakkavaṭṭaka-* means Persian wheel.

In Aśoka's inscriptions the dental seems more usual in the Southwest (Gir. *-a(ṭ)thāya-*, Kal. *-(ṭ)thāye*); this is also on the whole the tendency of Marathi and Gujarati. The words with the cerebral are generally all-Indian. The distribution of doublets in the various modern languages is fairly consistent: e.g. *kaṭṭ-* cut, *katt-* spin; but while 'knife' is in Ashkun and Waigeli *kāṭā*, Kati *kḷ̥å*, it is *kāt* in Gujarati, Sgh. *kätta*, Rom. *kat*, etc. There are many contradictions. Two representatives of *gardabha-* and *ardha-* are found in one and the same language. There is no general rule; the dominant fact is the fresh extension of cerebrals.

After the Vedic period we find a few traces of the distant action of *ṣ* and *r*, not only upon *n*, but also upon occlusives. As. Gir. *osuḍha- (auṣadha-)* as against Kalsi *osadha-* is explained by the intermediate form *oṣa(ḍha-)* of the North-west. TAr. and Epic *paṭh-* read, recite (and already TS *prapāṭhaka-* reading, chapter) comes from *prath-* extend, spread (if not from Drav. *pāḍ-* (old *paṭh-*?) to sing.). Pali *saṭhila-*, Pkt. *siḍhila-* opposed to Skt. *śithila-* belong to the *śrath-* group; Pali *paṭhama-*, confirmed by Kharoṣṭhi epigraphy, by Pkt. *paḍhama- (prathama-)* and by Sgh. *paḷamu*, is opposed to Nāsik and Nānāghāt *pathama-*, Khāravela and Sanchi *padhama-*, to which all the modern forms correspond: Hin. *pahilā*, Shina *pumuko* etc. The representative of *prati* is regularly *paṭi-* in Asokan and *piḷi-* in Singhalese; but in Pali and in epigraphic prakrit *pati-* generally occurs instead of *paṭi-*. In Prakrit and modern Marathi *pai-* is used instead of *paḍi-*, *paḍ-* when the word contains a cerebral, inclusive of *r*. Thus Pali *paṭirūpa-*, *paṭimanteti* which implies *-mantrayati*; *paṭiṭṭhāti*, Khāravela *paṭi(ṭ)ṭhāpayati*; Pkt. *paijjā* from *pratijñā*, influenced, no doubt, by a lost form *painnā* cf. Mar. *paij* and *pain*: Nep. *paico* ready *(*pratikṛtya-)* as opposed to *parosi* neighbour *(prativeśin* or *prativāsin)*.

This tendency has been fully developed only in the case of *prati*, but it is interesting to find some additional evidence of it. We have seen that it may also be used to account for the action of *ṛ* on a following *t*.

p. 57 The cerebralisation of a preceding dental by *r* is, on the other hand, very rare in any period. The Ṛgveda affords no certain examples except with the voiced consonant supporting the nasal: *āṇḍá-* cf. Kalasha *õṇḍrak* egg (O. Slav. *jędro*, and *daṇḍá-* stick (Gk. *déndron*). Perhaps we should include here the initial voiced

consonant of ŚB *ḍītara-*, Pa. *ḍeti* and *dayati*, if we consider Ved. *dī-* to have been contaminated by *drā-*; Ep. and Pa. *uḍḍī* (Nigh. *ḍīyate* is uncertain).   The Indian name for "horse", Ap. Śr. *ghoṭa-* corresponds to a Dravidian type **ghuṭr-*; Ep. *paṭṭa-* can hardly come except from *pattra-*.   As. Kal. *heḍisa-* corresponds to *īdṛśa-*; Sarnath and Dhauli, on the contrary, have *hedisa-*.   Pkt. *khuḍḍa-* from Skt. *kṣudra-* proves less, for the *ṣ* may have acted as in As. *osudha-*.   These facts, which are difficult to interpret and to classify, are the only ones found before the modern period, in which the only consistent cerebralisation is that of the dental plus *r* in Sindhi (*ṭr ḍr* in the North, *ṭ ḍ* in the South) and in Dardic, at least, when there is assimilation: Garw. *pūḷ* son, *ṭhā* three (but in Garw. *ḷ* seems to denote a voiceless *l*).

Finally, the Ṛgveda has two cognate words in which an inter-vocalic dental nasal has become a cerebral without being acted upon by another phoneme: *sthānú* trunk, and *sthū́ṇā* column, Av. *stūnā*.   No doubt we should add TS *guṇá-* thread cf. Av. *gaona-* animal hair (Przyluski, *JRAS*, 1932, p. 343).   This is the first sign of a change which afterwards became regular, cf. p. 78.

The eastern dialects have to-day only the dental nasal.   This was already the case, at least in writing, in eastern Asokan. Modern Singhalese, on the other hand, rhymes *n* with *ṇ*.

Every form of cerebralisation in force in the modern languages can, therefore, be traced to the beginnings of the literary tradition. The words containing cerebrals become more and more numerous, and local dialects must have supplied a certain number of them. There would be, perhaps, a larger body of fact for the early period, if the origin of all words with cerebrals were known with certainty.

The fact remains, however, that for no ascertainable reason, after the Veda, cerebrals are met with in words previously recorded as having dentals.   The verb *aṭati* from the Indo-iranian root, which furnished the name for 'guest' *atithi-* Av. *astiš* is *aṭati* in Epic poetry; *paṭ-* which at first means 'fly' (Av. to fly, hurl oneself), then in the Atharvaveda "to fall' is *paḍ-* in Middle Indian and in almost all Neo-indian languages (but Kash. *pĕ-*).   We may suspect here the influence of the Dravidian names for heel and foot on the one hand and of a Dravidian root signifying "to fall' or "to lie" on the other.   But it is not clear how Pa. *kaṭh-*, Pkt. *kaḍh-* confirmed by Neo-indian and corresponding to Skt. *kvath-* to boil, are related to it.   Finally, there is a long series of widely distributed words beginning with a cerebral occlusive: Nep. *ṭiko* mark, *ṭhel-* to push, *ḍungur* heap, *ḍhak-* to cover, *ḍhāl* shield, etc.

Here Dravidian, which has practically no initial cerebrals, cannot be concerned.

There is assimilation by anticipation in a few words and in some languages only: Skt. *daṇḍa-*: Nep. *ḍāṛo*, etc., as against Mar. *dāḍā*, Lah. *ḍaṇḍā*, Shin. *ḍoṇu*, Kash. *dōnᵘ*; Skt. *dṛṣṭi-*: Nep. *ḍiṭh*, etc., but Mar. *dīṭh*, Sgh. *ḍiṭu*, Guj. *dīṭho* seen. In the two families of words which have had the cerebral since Pali *ḍasati* (cf. *ḍaṃsa-* gadfly) and *ḍahati*, H. Smith has raised the question, whether they cannot be explained by their participles, in which such an assimilation might have been produced: *ḍaṭṭha-* and *ḍaḍḍha-* at least are found in Prakrit.

Finally in Sindhi, every voiced dental now surviving and thus in strong position, has become a cerebral: *ḍakhiṇᵘ* South, *ḍandᵘ* tooth (*nd* is the only case in which dentals are found), *koḍarⁱ* mattock, *saḍᵘ* cry. In modern times the parallelism of dentals and cerebrals is completed by the appearance of *ḷ* and *ṛ*. The first is met with in Marathi, Gujarati, Rajasthani, Panjabi (with radiation to the East and West, especially no doubt in the rustic forms of speech, *LSI*, IX, 1, p. 609 and Grahame Bailey, *JRAS*, 1918, p. 611), in the dialects round Simla, Garwhal and Kumaon and finally in Oriya. As regards *ṛ* and *ṛh*, they are recorded in Sindhi, Hindi and Panjabi, Nepali, Behari, Chattisgarhi, Bengali and Oriya; they exist in village Kashmiri, Shina, some Himalayan dialects and in Kafiri. There is no question here of independent phonemes, but of the intervocalic forms of *l* and *ḍ*. The notation, which is therefore unnecessary, is irregular and at times contradicted by the actual pronunciation (in the East). Sometimes on the contrary it is missing in writing, while apparent to the ear, e.g. in Marathi and Gujarati. The recognition of these two new variants in speech and writing (*ḍ* with a diacritical mark is used for *ṛ*) is a consequence of the important law, by which intervocalic occlusives are opposed to the same occlusives in stronger position. Thus *ḷ* and *ṛ* have the same origin as *ṇ* in many cases. But these spellings are uneven in scope and their historic value

p. 59   variable. Nepali, Bihari and Hindi (eastern and generally speaking, even western) *r* and Singhalese *l* or *ḷ* represent, like Sindhi and Panjabi *ṛ*, an old intervocalic *ḍ*, while Nepali, Hindi and Bihari *ṛ* is equivalent to Singhalese *ḍ* and the *ḍḍ* of Panjabi and Prakrit. Moreover, Romany *r* corresponds to old *ḍ* and also to *ḍḍ* (Turner, *Festschrift Jacobi*, p. 34).

By the time that these new occlusives appear, the cerebral sibilant no longer exists as such, except in Shina, which possesses a new system of cerebrals.

Finally, the possibility that certain cerebrals may have been imposed upon foreign words, surprising as it may be, must, be taken into account. We cannot venture to explain *sthūṇā* and *sthāṇú-* or *guṇa-* in this way, but in later times *kaiṭabha-*, Pa. *keṭubha-* can reasonable be connected with the Semitic word, which entered later under the Arabic form of *kiṭāb* book (S. Lévi, *Études... R. Linossier*, p. 397); *ṭanka-*, modern *ṭākā* noun of measure and money, is the Tatar *tanka*, Arm. *thanka*, Pers. *tanga* a small coin; *ṭhakkura-* i.e. *ṭhākur* a title of nobility, must be, according to S. Lévi, related to the proper noun Tekin, already transcribed in the Rāmāyaṇa under the form of *ṭaṅkaṇa-* (which designates the people and later borax or tincal, Pers. *tinkār*). At the present day the equivalence of Beng. *ḍingī* river boat (English *dinghy* or *dingy*) and Nuri *dengiz* ship, may be noted, cf. O. Turk. *deñiz* sea. The cerebral of recently borrowed English words is destined to yield an actual pronunciation. Must we admit that such words are evidence also of a special way of pronouncing Turkish dentals?

III. ASPIRATED OCCLUSIVES

In Iranian the voiceless aspirated consonants have become fricatives and the voiced have lost their aspiration. In Sanskrit, on the contrary, and all Indo-aryan languages even to the present day, the aspirated occlusives are clearly distinguished from those which are not.

The aspiration of the two categories was not of the same nature; the presence or absence of glottal vibration constitutes in itself a vital difference. This is the reason, why occlusives, whether aspirated or not, invest preceding consonants with their voice-lessness or voicedness (*véttha*, Gath. *vōistā;* cf. *véda;* and *śagdhi* from *śak-*, *nádbhyaḥ* from *napt-*), but not when consonants follow them.

p. 60 Voiceless aspirated consonants remain unaltered and display the *i* element of dissyllabic roots, which seems actually to be the mark of their origin (Kuryłowicz, *Symbolae gram. Rozwadowski*, I, p. 95): *pathibhiḥ* (but in Iranian with assimilation, Gath. *padəbhiš*), *śnathihi*, *śnáthitar*, *grathitá;* there is therefore no actual contact of consonants (AV. *gṛṇatti* from *granth-* is secondary and moreover corresponds to *kṛṇatti* in a parallel passage of RV).

The voiced consonants on the contrary have, from the Indo-iranian period, apparently transferred their voicing and their

aspiration to following occlusives (Bartholomae's Law), contra-
dicting the ordinary formula of consonantal contacts.

The aspiration of the aspirated voiced consonants is to some
extent independent of their occlusion. And so, in Sanskrit, as
elsewhere in Indo-european, the aspiration of a consonant formerly
aspirated, but dissimilated, may reappear secondarily, for example
in the sigmatic aorist stems: *bhuts-* from *budh-* or *ghuks* from *guh*.
Unlike a sibilant, which in Sanskrit, disappears between occlusives
(abhak(s)ta- from *bhaj-)*, the aspiration passes to the last
consonant of a group. Thus **labh-ta* produces **labtha* and *labdha-*
where the voiceless consonant caught between two voiced elements
is voiced; similarly the genitive sg. of *kṣāḥ*, Indo-ir. **jhmas*, Av.
zəmō would not be **hmaḥ*, but **jmhaḥ*, which being impossible,
lost the aspiration, so *jmáḥ*.

A sibilant cannot be voiced (or aspirated) in Sanskrit.
Accordingly the desiderative of *dabh-* is **di-dbh-s-> *didbs->*
dipsati, compared to the Gath. infinitive *diwžaidyāi;* similarly
sīkṣ- desid. from *sah-* (in which the long *ī* testifies to a voiced
hush-sound, which has disappeared: *si-šgh-s, si-žgh-s;* cf. *śikṣ-*
from *śi(ś)kṣ-)*, 3rd pl. *bapsati* from the reduplicated stem of *bhas-*.

Although relatively inclined to shift, the aspiration of aspirated
consonants is tenacious and we shall see that it is the occlusion
and not the aspiration, which is the weak element of the voiced
aspirated consonants in Sanskrit.

In the modern languages the aspiration disappears at the end
of the word or before another consonant: Guj. *samajvū* opposed
to Hin. *samajhnā* to understand, Mar. *śiknē* opposed to Hin.
sīkhnā, Guj. *śikhvū* to learn, whence by analogy the causatives
samjāvvū, śikviṇē. This fact, which has often been noted, is no
doubt more general than the orthography of the various languages
leads us to suppose.

Deaspiration is more or less advanced in Kafiri, Asiatic Romany,
certain dialects of Bengal, Sind etc. So far as concerns voiced
consonants, it is usual in Kashmiri and Shina (but there are
aspirated voiceless consonants and a new *h* from old hush-sounds
in Kashmiri: *hech-* learn, Shin. *siç-; hat* hundred, Shin. *šal*).

p. 61   This deaspiration was not effected immediately. Traces of a
former aspiration are to be found in a perceptible glottal movement
in Gujarati (*b'en* written *bhen* or *behen*, Skt. *bhaginī; k'aiū* written
kahyū, Skt. *kathitam*) and in eastern Bengali. These "recursives"
are different in origin from those of Sindhi, which represent strong
consonants. Sindhi normally preserves the aspiration of aspirated

consonants (Turner, *Sindhi Recursives*, *BSOS*, III, p. 301; Chatterji, Rec. in new Indo-Aryan, *Indian Linguistics*, I, p. 1).

In Panjabi it is the vowel which carries traces of the voiced vibrations of the vanished aspiration. As we saw on p. 49, it was given, by contact with the old aspirate, a portion of its lower tone : *báda (baddha-)*, *hó (bhava-)*, *kará* (Pkt. *kaḍhia-*, Skt. *kvathita-*). The presence of this low tone caused the unvoicing of initial consonants: *kár* house, Hin. *ghar*, *cáru* broom, Hin. *jhāṛū*. Analogous instances are found in the dialects of the Simla region and also in the low and high valleys of the Kunar (Pashai and Khowar) and in Bashkarik in the neighbouring valley of the Panjkora (Palola which separates this dialect from the preceding, is a recent importation).

Elsewhere voiced aspirated consonants were unvoiced directly and their aspiration preserved. Such is the case with northern Kalasha *thum* smoke *(dhūma-)*, *čhū* daughter (Pkt. *dhūā*), but *bhum* land *(bhūmi-)*, and especially in Romany. In Armenian Romany the aspirated occlusives seem to be unvoiced in any position: *thov* wash *(dhāv-)*, *luth* milk *(dugdha-)* and similarly *khar* house, *phal* brother *(bhrātā)*, but *juǰ* battle *(yuddha-)*, *manǰ* middle, belt *(madhya-)*. In European Romany initial letters only are unvoiced: *kham* sun *gharma-*, *phal* brother, *thuv* smoke, to which we must add recently aspirated consonants, which have taken their aspiration from Middle Indian medial aspirated consonants: *thud (dugdha-)*, *phiv (vidhavā)*, *phand- (bandh-)*, *č(h)ib (jihvā)*. The old surds do not attract this aspiration: *(kar* from Pkt. *kaḍh-)* and the voiced consonants do not attract the aspiration of the surds: *dikh* from Pkt. *dekkh-*; Welsh Rom. *phuč-* ask, is recent.

Syrian Romany unvoices intervocalic *-dh-*, or at any rate the fricative which represented it: *gesū (godhūma-)*, 2nd pl. ending *-s(-atha)* (*J. Gipsy Lore Society*, VII, p. 111). The unvoicing of initial *h* may perhaps be compared: *xaz- (has-)*, *xri (hṛdaya-)* and of intervocalic *h*, reduced to a tenuous glottal stop: *muᵒ (mukha-)*, *āmeᵒ* (Pkt. *amhe*); the glottal stop may, however, have had another origin: *suᵒ (sūci-)* reminds one more of the Shina development referred to above.

p. 62   Singhalese is the only language, which has lost all the aspirated consonants, voiced as well as voiceless (*bim* from *bhūmi-*; *dā* from *dhātu-*, *digu* from *dīrgha-*, *lada* from *labdha-*, *paḷamu* from *prathama-*, cf. p. 56 *uṇu* from *uṣṇa-*). Even *h* hardly appears except to mark a hiatus (*sohona* or *sona*, Skt. *śmaśāna-*; but *niya* Skt. *nakha-*) or as a late substitute for *s*. It should be kept in mind

that Tamil, the adjoining Dravidian language, has no aspirated consonants and old *s* has disappeared from it. The influence of this language in Ceylon is, perhaps of ancient date, cf. *Critical Pali Dict.* s. v. *aṭṭa-*.

FRICATIVES

Whatever alterations may have been made to the aspirated consonants, the pronunciation as fricatives is almost unknown to the cultivated languages. Early traces of it are very rare. The aspirated labial is the only one, which tends to preserve a portion of the articulation as a fricative. Nothing is proved by Pali *-vho* against *-dhvam*, for *vh* alternates with *bbh* in *anavhito: anabbhito:* the articulation here must be at least as strong as in *mayhaṃ* which has resulted in *majjha(ṃ)* in Prakrit. The original of the proper noun *Sarabhū*, Skt. *Saráyu-*, cf. Dutr. *salavhu* had doubtless a fricative ; cf. Gk. *Sarábos* Ptol. But what was the language ? The Dutr. ms has *pravhu abhivuyu* from the root *bhū*, but the dialect is peripheral. Perhaps the *h* in *ho-* succeeded this unstable intermediate form *vh* earlier than was the case with the other consonants.

This almost total absence of fricatives derived from aspirated consonants agrees with the absence of fricatives by which Indo-aryan is characterised. Sanskrit had none except *v* and the voiceless sibilants and is thus opposed to the languages of Iran, both ancient and modern, in which the aspirated surds particularly are replaced by fricatives and for example, *kt* has become *xt* from the earliest stage (Meillet, *IF*, XXXI, p. 120). In Middle Indian the voiced consonants which were intervocalic or had become so, lost occlusion and must have passed through an intermediate fricative stage. But this stage was quite transitory and was regularly recorded only for the lax nasalised *v* which replaced *-m-*; in other cases the time taken in the pronunciation of the former guttural or dental was occupied in a raising of the tongue in the direction of the palate without actual occlusion. This the Jainas denoted by a *y* called *ya-śruti*, which has in fact left traces on the adjoining vowels in certain languages, e.g. Mar. *śe* from *śatam* as against Hin. *sau* (intermediately **sayā* and **saũ* respectively) or Mar. *-ẽ*, Guj. *-ũ*, the neut. sg. termination, Skt. *-akam;* but Mar. *ge-lā* Hin. *gay-ā* gone, both go back to *gaya (gata).* This transitional phoneme, a very lax fricative may also be a *v*, after *u* and *o* in Apabhraṃśa (Bhav., p. 24) and between some vowels in Marathi; cf. *nuvara (nagara)* beside *niya (nakha)* in Singhalese.

p. 63 More rarely *h* is utilised to mark the hiatus, or more accurately the passage from one vowel to another. This tendency to insert *y* and *v* between adjacent vowels is reminiscent of the Dravidian languages in the South.

These ill-defined lax fricatives are the only ones in classical Middle Indian. In the inscriptions and texts in Kharoṣṭhi writing we find certain consonants with a diacritical mark resembling *r*, but not possessing the same value; e.g. *bhagra* beside *bhaga* at Wardak. It is tempting to regard this as a fricative, especially if it is compared with *vh* from *bh*. But the language of the Dutr. ms in particular is related to modern Panjabi and Sindhi and there are no fricatives in these languages. The border languages alone have fricatives; *z*, *ž* (and indeed, cerebral *ẓ*); Shina *aẓŭ* cloud *(abhra-)*, *ẓon* bow *(droṇa-)* and even *ẓā* brother *(bhrātā)*; also *θ*: Pašai *θle* 3 *(trayaḥ)* *θlŭc* flea *(pluṣi-)* (Morgenstierne records this *θl* as *λ* (voiceless *l*), R. L. Turner); gutturals either single, Khowar *mux* mouth *noγor* town or in groups: Kati *vaxtå* taken *(apagṛh-)*, *ftå* given *(pratta-)*; Pašai *θlam* work *(karma-)*, Baškarik *lām* village *(grāma-)*. Here we also find *l* or *r* from intervocalic *-d-* (or *-t-*): Khowar *sēr* *(setu-)*, *šor* *(śatam)*; abl. *-ār* (Pkt. *-ādo*); Shina *šal* *(śatam)*, *sigal* *(sikatā)*, *lel* *(lohita-)*, *jil* *(jīvita-)* (Kalaša gives clearer examples of *l* < *t*. R.L.T.), but *pā* *(pāda-)*, *sau* *(setu-)*, *šeu* *(śvet)* etc., and also *gū* *(gūtha-)* perhaps through a softening of intervocalic *l*, of which there are examples in this area. Eur. Romany has *phral* *(bhrātā)*, *juvel* *(yuvatī)*, *pīel* *(pibati)*, Nuri *juār*, *piar*, *gir* *(ghṛta-)*, *bar* (for *brar) brother (but there are instances to the contrary: Nuri *si* cold *(śīta-)*, *sai* 100, *pai* husband *(pati-)*, *pau* foot *(pāda-)*, *ro-* weep *(rodati)*; further, *-dh-* has become *s*, see above). These developments presume a *-δ-* as is met with in the eastern Iranian dialects. There is even initial *d* > *l* in Prasun and in Armenian Romany, as in Afghan, Munjani and Yidgah.

In India proper foreign fricatives become acclimatised with difficulty: *khudā* is used for Pers. *xudā* and *jamīndār* for *zamīndār* etc. Fricatives are, however, found here and there. A more or less weak labiodental interchangeable with *ph* has been noticed in village Panjabi, while *kh* for example is invariable. In Bengali *ph* and *bh* are ordinarily pronounced *f* and *v*, both bilabial. The same thing occurs in the popular Urdū of the Deccan *(sitafal* and also *rax*, but this may be a hyperarabism v. Qadri, *Hind. phonetics*, p. 31) and even in Marathi (attested by A. Master). Eur. Romany has *pfuv*, *txon* beside *phul*, *than* and we have seen that the intervocalic *s* of Asiatic Romany is based also on a fricative.

IV. ASPIRATES

The Sanskrit phoneme *h* is a voiced aspiration similar in nature to the aspiration of the aspirated voiced consonants, but not entirely identical with it. For in sandhi a final occlusive before *h* gives something different from the corresponding aspirated occlusive: *cid hi >cid dhi, sadhrayàg hitā >sadhryàg ghitā*. The "attack" of the *h* therefore is still perceptible in this position.

Sanskrit *h*

According to its etymology *h* is what remains of prehistoric aspirated voiced palatals:

IE *g'h:*	*váhati*		Av. *vazaiti*	Lat. *uehit*
	himá-	cf.	*zyå* nom. sg.	*hiems*
	ahám		*azəm*	*ego*
	hr̥d-		*zərəd-*	*cord-*
IE *gᵘh* before *e*:	*hánti (ghnánti)*		*jainti*	
	druh- (drugdhá)		*drug-, druxta-*	

This complete loss of occlusion is peculiar to India, but not universal. Kafir has retained the articulation; Kati *žim* snow, *žira* heart, see p. 51.   Even in Sanskrit traces of it can be recognised in certain reduplicated forms, in which the dissimilation of the aspiration of consonants has laid the palatal bare, henceforward to remain stable: *jáhāti*, formerly **jhajhāti*, Av. *zazāmi:* similarly the 2nd sg. impv. of *han-: jahi*, formerly **jhadhi*, Av. *jaidi*. For the gen. *jmáḥ* see p. 60.

The occlusion is naturally lost at first in the voiced semi-occlusives. In the course of history all the surviving aspirated occlusives (old voiced consonants together with the surds which had become voiced) lost their occlusion between vowels. But the movement begins with the voiced aspirated occlusives and from the earliest times, so that just as in the early period **jh* lost occlusion, while *j* persisted, the R̥gveda in the same way records *h* arising from **dh*, in the endings *-mahi, -mahe*, cf. Gāth. *-maidī, -maide*, Gk. *-metha*, in the imperative, notably after a long vowel, *pāhi* opposed to *kr̥dhi*, Av. *-di*, Gk. *-thi* (*MSL*, XXIII, p. 175; similarly, remarks H. Smith, it is after a short vowel that *-bhi* sometimes persists late in Pali *(paṇḍitēhi, isïbhi ; sabbēhi, ñātïbhi)*, in compounded words *(sahá-* beside *sadhá-* ; *-hita-* from

p. 65 *dhā-*, at first when compounded) or in minor words (*ihá* cf. Pali *idha*, As. *hida* from **h-idha; kuhá* Gath. *kudā*) and even in some words in which alternation might have maintained the occlusive (*āha, āhuḥ*, cf. 2nd sg. *āttha*, Av. *āδa;* RV *grhṇātu, grhāṇá* beside *grbhṇáti, grbhṇate;* TS *upānáhau* dual of *upānát:* Ait. Br. *nyagroha-*) (in a passage in which the vulgar form is opposed to the traditional and etymologically justified form), for AV. *nyagródha-*, Pa. *nigrodha-*.

From the time of the earliest Middle Indian the examples become more numerous. Aśoka and Pali have an initial *h* in *hoti*, an unemphatic form *(bhavati)*. Intervocalically Aśoka has *lahu (laghu), lahevu(bh), nigoha-(dh);* Pali has *dahăti* (cf. As. *upa-dahevu*) for Skt. *dadhāti*, which, in view of Skt. *hita-*, may have well been either reformed or maintained. Finally, a few words like *ruhira-, sāhu-*. The alteration is generalised in later Middle Indian; and of all aspirated occlusives in weak position the voiced aspirate *h* alone remains.

The voiceless aspirate; Middle Indian *h* succeeding the sibilant

There was, moreover, in Sanskrit a voiceless aspirate, but it is not considered an independent consonant, the more so because it replaces the final *s* of a word before a surd or a pause. It is noted in writing as the visarga *ḥ*. There is no longer any trace of it in Middle Indian, unless it is in the possibility of lengthening the preceding vowel *(aggi* or *aggī<agniḥ)* and, as far as *-aḥ* is concerned, in the fact that *-a-*, which is naturally closed and all the more so when final, has joined Skt. *-o* from **-as* (**-az* before an initial voiced consonant of a succeeding word).

In prakritic Middle Indian, *s* opens in a group of consonants and new aspirated occlusives are formed. When the group contains a voiceless occlusive, the group remains voiceless; when it contains a nasal, which persists, the aspirate becomes voiced: Pa. *nhā-, nahā- (snā-), pañha- (praśna-), uṇha- (uṣna-), gimha- (grīṣma-), tiṇha- (tīkṣṇa-)*, etc.

In certain circumstances an intervocalic *h* of obscure origin soon becomes voiced. We find this happening in certain Middle Indian futures, which normally end in *-(i)ssati* from Sk. *-iṣyati*. Pali has *kāhāmi* against Aśoka Shah. *kas(s)ati* from *kar-*; conversely Aśoka (Pillar Edicts) has *dāhaṃti* from *dā*, while Pali has *dassati*. There is a curious set of futures in *-hiti*, Pa. *ehiti* (As. *ehatha, esatha), hohiti, hehiti* besides *hessati* (As. *hohaṃti* and *hosaṃti*), which may be of different origin p. 230. It is doubtful

p. 66 whether the modern future in -*h*-, which is widely distributed, even outside the areas in which sibilants normally open (Marwari, Braj, Bundeli, Bhojpuri, Old Bengali, Kashmiri and Palestinian Romany) can be directly connected with these forms, which are as yet unexplained.

Later, in the important series of Prakrit numerals, authenticated by the numerals of the modern languages, Skt. *daśa*- is represented by *daha*- and *dasa*- (in compounds -*raha* and -*rasa*) and -*saptati*- in compounds by -*hattari*. It may be that the forms of numerals previously current over the whole of India were those of the western zone (Guj. Sdh. Lah. Kash., cf. RV *Suṣomā*, eastern tributary of the Indus, Megasth. *Sóanos* or *Sóamos*, mod. *Sohān*), in which are found the opening of sibilants, the voicing of surds after nasals (but Khāravela has also *pandarasa*) and even intervocalic -*d*- passing into -*r*-, more frequently than elsewhere. But -*hangha*- (*sangha*-) is met with at Nagarjunikonda on the Kistna, *EI* XX, p. 17,20; and *suvaṇamāha* a weight of gold, at Bhaṭṭiprōlu, where, it is true, western influence is suspected. In any case, an *h* developed from a sibilant occurs in isolated words, v. Pischel p. 262 and even if *di(v)aha*- is Skt. Pa. *divasa*- contaminated by *aha(n)*-, as Helmer Smith ingeniously maintains, other cases occur, which up to the present have defied all explanation.

The noun endings (gen. sg. -*aha*, pl. -*ahaṃ*, loc. sg. -*ahi*, abl. -*aho*) and the verb endings (2 sg. -*ahi*, 3 pl. -*ahiṃ*) in Apabhraṃśa must be kept distinct. Here there has been morphological analogy. Otherwise, the derivation from *s* would be natural in areas, such as Gujarat, where the replacement of *s* by *h* is common, see p. 70.

Subsequent development of the aspirate

H generally remained stable at the beginning of the word, but it is weak between vowels. Hence for example, the modern Bengali oblique in -*ā* (from Apa. -*aha*) and the 2nd pl. in -*ā* or -*ō* from Apa. -*aha*, -*ahu*. Words have thus lost all traces of the old occlusive: Mar. *śerā* (*śikhara*-) *mevuṇ* (*maithuna*-) etc.

The weakness of intervocalic *h* explains the fact that it was used to mark simple hiatuses: Mar. *pihū* beside *piyo* (*priya*-), *nahī* or *naī* (*nadī*), Beng. *behulā* (*vipulā*) etc. This happens frequently in Singhalese. But Pkt. *vihatthi* (*vitasti*, Pa. *vidatthi*) has no doubt been contaminated by *hattha* (*hasta*-) (H. Smith).

There are cases in which the aspiration was saved by attachment to a preceding consonant. In European Romany the anticipation p. 67 of this process provoked the unvoicing of the initial voiced

consonant: *cib (jihvā), thud (dugdha-)* like *kham (gharma-),
thov (dhāv-),* etc.

When the word begins with a vowel, the aspiration tends to
precede it: Pkt. *hoṭṭha,* Mar. *hōṭ (oṣṭha-);* Hin. *ham,* Suratī *hame*
(O. Guj. Pkt. *amhe*), Guj. *hūno (uṣṇa-)* etc.

Expressive or emphatic *h*

Finally initial *h* not justified by the etymology is met with
sporadically and is intended only to reinforce the expressiveness
of certain words: Aśoka *hida* for **h-idha, hevaṃ, hemeva (e <va >-
meva), hedisa* (Pa. *edisa-,* Skt. *etādṛśa-*), *haṃce (aṃ =yat;* cf. Pa.
yañce and Skt. *yad... ca* sooner than); Pa. *halaṃ hevaṃ hañci
hetaṃ* etc., v. Saddanīti, p. 889 n. 8, 894 n. 13. In modern times
Panj. *hor,* Raj. and Dakh. *haur,* vulgar Hin. *har* and, literary Hin.
aur (aparam), dial, Panj. *hekk* one (*eka-;* note the gemination,
v.p. 92); Mar. *hā,* he, Beng. *hothā* there, *hethā* here (Pkt. *ettha*),
hākuli- to be frightened *(ākula-);* Sgh. *hē* that man, *hō* she, beside
ē, ō, which is the more remarkable because Singhalese is in the
course of losing its *h-* (H. Smith).

V. SIBILANTS

Indo-iranian possessed a dental sibilant, which was normally
voiceless, but liable to be voiced in contact with voiced occlusives
(Av. *asti* he is, *zdi* be; cf. Skt. *ásti, edhi*) and further regularly
becoming a hush-sound after *i, u, r* and the gutturals (Av. loc. pl.
drəgvasū, cf. Skt. *dyumátsu;* but Av. *aspaēšu, tutuxšva,* Skt.
áśveṣu, vikṣú, nṛ́ṣu; Av. gen. sg. *nərəš*).

Indian at first retained this system and more strictly than
Iranian, which, like the adjoining Indo-european languages,
opened *s* in initial and intervocalic position; Skt. *sánti* they are,
Av. *hənti;* Skt. *ási* thou art, Av. *ahi.*

But, as we have seen, the hush-sound form of the sibilant became
a cerebral and brought about the creation of a new category of
occlusives under the name of cerebrals in Sanskrit. Now, the
complete vocalisation of old *ṛ* which had cerebralised the adjoining
dentals, sibilants included, resulted in *ṣ* following the vowel *a*
in quite a large number of cases and ceasing to appear as a alternant
of *s; pāṣyà-,* which is probably derived from a noun corresponding
to Germ. *fels,* Gk. *pélla =lithos* stone; *kaṣati,* cf. Lith. *karšiu.*
This is an important novelty.

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On the other hand Indian has eliminated the voiced sibilants, which Iranian has preserved. They lose their continuant quality before gutturals or labials: *ádga-* Phl. *azg ; vidbhíḥ*, cf. Av. *vīžbyō*. They disappear before a dental, their vibration being transferred to the preceding vowel, which is thus lengthened and, in the case of short *a*, changes *timbre: nédiṣṭha-*, Av. *nazdišta ;* perf. 3rd pl. *sedire* from *sad-* (so **sa-zd-*); 2nd pl. impv. *ādhvam*, from **āsdhvam ; nīḷá-* from **nižda-*, cf. Eng. *nest ; sīkṣant-* old **si-zgh-s-*, desiderative participle of *sah-*. At the end of the word, of the two voiced sibilants evolved from *-s, -š* before a voiced consonant, the first *-z* disappears closing the vowel: *devo*, the other *-ž* becomes *r: agnir*.

Sanskrit, therefore, possesses two sibilants, both exclusively surds and relatively independent. There is in addition a third sibilant, also exclusively a surd, arising from the fact that the Indo-european prepalatals were divergently handled: **k′* became *s′* in Sanskrit, while **g′* is represented by *j* like **gʷ(e)*, and **g′h* by *h* like **gʷh(e)*. Thus over almost the whole of the Indian area, the old voiceless occlusive appears as a third sibilant characterised by its palatal and exclusively voiceless pronunciation. Kafiri alone retained the old occlusion, p. 51. In Iranian, on the contrary, it remains linked with its voiced fellow: Av. *s, z*, O. Pers. *θ d*. The link with the other sibilants is the more marked in Sanskrit because in certain positions the old guttural became a hush-sound and appears as the cerebral sibilant: *aṣṭá*, Av. *ašta*, Lat. *octō*, cf. *aṣīti ; váṣṭi*, Av. *vašṭī*, cf. *váśmi*, Av. *vasəmī*.

Sanskrit thus arrived at quite a new system of three sibilants, corresponding to the three categories of occlusives obtained by a movement of the forepart of the tongue. These sibilants are furthermore liable to be interchanged. We have already met with *s* and *ṣ* depending on the preceding phoneme and *ś* and *ṣ* depending on the phoneme following. In other cases, *s* becomes *ś* in contact with palatals *(paścá*, cf. AV. *pasča*, Lith. *paskuī ; sa-śc-*, reduplication of *sac-)* or by assimilation *(śváśura-*, cf. Av. *hvasura-*; similarly in the western dialects of Middle Indian: As. *anuśaśana)*. It also becomes *ṣ* by assimilation: *ṣoḷhá* from **sażdhā*; and *ś* results from the dissimilation of *ṣ* and *ṣ: śúṣka* from **ṣuṣka-* which came by assimilation from **suška-*, Av. *huška-*; As. *suśruṣa-* comes from *śuśrūṣ-* etc.

These sibilants soon became more or less confused, and their preservation throughout the whole of Sanskrit literature is not true to the facts. On the inscriptions of Aśoka only those from the North-west frontier have retained the three sibilants; and

this is also true for the later inscriptions in Kharoṣṭhi and for the Dutreuil de Rhins ms (with irregularities in correspondence, e.g. *ṣaga*, Skt. *saṅga-* and *sarga-* Konow, *Festschrift Windisch*, p. 93), The other inscriptions of Aśoka (apart from a few incoherences. which seem purely graphic, especially in the last Kalsi edicts) and all Middle Indian inscriptions have only one sibilant, generally *s* and exceptionally *ś,* with the exception of the Bhaṭṭiprolu reliquary, in which we find *s* in *sā, puta(s)sa* and a single symbol for *ma(ṃ)juṣā* and *śarīra-* (the crystal prism has also a hush-sound distinct from the dental, but only for the palatal; there is no example of cerebral). Accordingly, it has been suggested that this reliquary should be attributed to people from the North-west, although the stūpa of Bhaṭṭiprōlu belongs to the Kistna group (Amravati, Jagayyapeta, Nagarjunikoṇḍa). The Middle Indian literatures similarly have a single sibilant (in *s ;* dramatic Māgadhī alone has *ś*); the only exception is that of the language (called Ḍhakkī or Ṭakkī) of the gambler in the Mṛcchakaṭikā, in which *ś* apparently persists, *s* and *ṣ* merging into *s ;* but even for this isolated passage the text is ill-established and deductions are uncertain. The description of the scholiast shows only a Magadhising tendency in the fact that *l* represents *r*, and a later style characterised by the *-u* termination for the Skt. *-aḥ, -aṃ.* It is a type of aberrant prakrit.

The confusion of sibilants is perhaps the sign of a relative weakness. In any case the surd opens before a pause from the very first. The defricativation of an occlusive at the end of a root in the middle of a word as in *mādbhiḥ* from *mās-, uṣádbhiḥ* from *uṣás-*, AV. *avātsīḥ* from *vas-*, is exceptional and depends on morphological reasons.

One sometimes finds *-ṣy-* represented by *-h-* in Middle Indian, cf. p. 65. The sibilant regularly opens in contact with occlusives particularly, the resulting aspiration being placed at the end of the group, even if the sibilant had preceded the occlusive—a normal process in a language possessing aspirated occlusives: *hattha- (hasta-), tharu-, charu- (tsaru-) ; sukkha- (śuṣka-), pakkha- (pakṣa-) ;* and with a nasal, the sibilant preceding, *amhe (asmé), uṇha- (uṣṇá-).*

However it happened, the merging of the remaining sibilants has been completed almost everywhere on the continent and in Ceylon (where moreover *c* has united with *s*). The pronunciation of the sibilant is, however, variable. Just as Māgadhī Prakrit had only

ś, so *s* which is generally dental, is a weak hush-sound in Nepali

and a strong one in Bengali and Oriya. It opens still more and becomes *x* in Assamese and Bhīlī and even *h* in Eastern Bengali, vulgar Gujarati, Singhalese (except at the end of the word) and intervocalically in Sindhi and Panjabi. The pronunciation of Sanskrit *ṣ* as *kh* and their equivalence in the script of North India also imply a fricative, but where this practice originated and from what period is unknown.

In Marathi the dental sibilant is palatalised in contact with front vowels under the same conditions as the occlusives known as palatals.

The North-west languages still more or less distinguish the sibilants, as did the Middle Indian texts in Kharoṣṭhi script. Kaśmiri has: (i) *sat* 7 *(sapta-)* and *ös* face *(āsya-)*; (ii) *šëh* 6 *(ṣaṭ)*, *šurah* 16 *(ṣoḍaśa)*; but *vëh* poison *(viṣa-)*; (iii) *hīr* head *(śirah)* and *wuh* 20 *(viṃśati)*, *ruhun* onion *(laśuna-)*. Similarly Shina: (i) *sat* 7, *sĩ* army *(senā)*; (ii) *ṣoi* 16 (iii) *šū* dog (Pa. *suṇa-*), but *ăṣu* tear *(aśru-)*, *šaṣ* mother-in-law *(śvaśru-)*, *ṣā* breath *(śvāsa-)*, where the sibilant originally formed part of a consonant-group. Elsewhere the distinction is made between a hiss-sound and a hush-sound; Kati *vasut* spring *(vasanta-)*, *šī* cold *(śīta-)*, *ušā* medicine *(auṣadha-)*; Torwali *has-* to laugh; *daš* 10, *ṣēiš* 16; *tiš* thirst. Similarly European Romany has *s* and *š* <*ś*, *ṣ*: Greek Rom. *so-* to sleep, *sap* snake, *das* Bulgarian, Slav; *šo* 6, *breš* year, *šel* 100, *deš* 10, *biš* 20; while Asiatic Romany has *s* <*s*, *ś* and *š* <*ṣ*. Armenian Romany goes with Prakrit.

We have seen that Indo-iranian possessed voiced forms of the hiss- and hush-sounds. Sanskrit eliminated them in different ways. This elimination was clear-cut in the prakritic languages; *z* in foreign words is consistently rendered by *j*; *jamīdār* for Pers. *zamīndār*, *rājī* for Pers. *rāzī* etc. In Dardic and Kafiri we find *z* and *ž* from two sources: (i) Kafiri *z* from IE *g'h*; *ž* from IE *gʷh(e)*: Kati *zīm* snow, *žār-* to kill.

(ii) *z* from intervocalic *-s-*, sporadically: Pašai of ꟺzbīn *hanvanz-i* we beat thee (the ending deriving from Skt. *-āmasi* is *-aĩs*, cf. Pašai and Khovar *-as*), Tirahi *spaz (svasā)*. It occurs more frequently in the Shina of Gures *āzu (āsya)*, *haz-* to laugh, *diz (divasa-)*, cf. *ăi*, *hay* at Gilgit beside *dez-*. Cf. also Prašun *iži* eye *(akṣi)*, *dzū* compared with Kati *vəċə (viṃśati)*.

(iii) fricatisation of Middle Indian palatals: Sh. *daž*, Kś. *daz-*, *(dahyate)*; Sh. *cūž (chidyate)*, *maža (madhya-)*, even *biž (*bhiyy-)*, *diž-*, obl. of *dī (duhitā)*; Kś. *zāl- (jvālaya-)*, *wŏpaz (utpadyate*, Pkt. *uppajjai)*. In Shina and certain Kafiri dialects cerebral *ċ*, *ẓ*

represent a group with *r: ẓigu* long (**drīggha* from *dīrgha*), *ẓā (bhrātā); j* is preserved in *jaç (drākṣā).*

Traces of treatment (ii) are found in Middle Indian also in the North-west. The Manikyala inscription has *majhe (māse)* and the Niya texts *dasa* and *dajha (dāsa-).* Now *jh* on coins denotes the initial of the king, Gk. *Zoilou =jhuilassa;* it may be therefore that the dialect of this document has *z* for intervocalic *s* (Rapson, *Khar. Inscr.,* III, p. 303, 312), but in Dutr. *praśajhadi, jh* must denote a true semi-occlusive, see p. 86.

Other methods of writing *z* in foreign names: *j, y, sy, sr* according to Konow, *Khar. Inscr.,* p. CVIII; *ys* is equally of foreign origin and not really used in India although it was included in the classical alphabet of Buddhist mysticism, see S. Lévi, *Feestbundel kkl. Bataviaasch Gen.* 1929, II, p. 100.

VI. NASALS

Sanskrit received *n* and *m* from Indo-iranian. The Hindu grammarians, aware of the manner in which blocked *n* adjusted itself, were led to assign nasals to each class of consonants and distinguished *ṅ, ñ* and *ṇ.* But only the cerebral constitutes an independent phoneme, which is able to exist between vowels, that is, after a vowel representing a prehistoric *ṛ* or itself preceded by *r* or *ṣ.* It is accordingly a new phoneme, but of restricted scope. It is not found initially and, in spite of the great expansion of the use of *ṇ* in Middle Indian (see p. 78), it occurs in initial position only in one series of texts and the modern languages do not have it at the beginning of a word.

To-day *ñ* and *ṅ* are found only secondarily in the peripheral languages; Si. *miña,* Pkt. *miñja,* Skt. *majjan;* Sh. *zameiñ* she strikes *(-inī?);* Kś. *beñe (bhaginī), miñā* Sir, for *miyă,* Pers. lw.; Nep. *kāṅiyo, kāĭyo,* Sh. *kõṅyi,* comb *(kaṅkata-),* Aśk. *aṅā* fire *(aṅgāra-),* Beng. *bāṅāl* Bengal.

The only independent phonemes are therefore *m, n* and *ṇ* in the regions where it is not confused with the dental.

VII. LIQUIDS

In early Iranian the IE liquids *l* and *r* are both represented by *r.* In the Persian inscriptions *l* is met with only in three foreign names. Those names of foreign origin which were naturalised have *r;* thus the name of Babylon is *Bābairuš.* In Middle Persian

l appears as the result of the early group -*rd*-. However, Persian has a few words, the *l* of which is certainly Indo-european: *lab* lip, *lištan*, to lick, *alūdan* to soil (cf. Lat. *lūtum*), *kal* bald (Av. *kaurva*-, Lat. *calvus*, Skt. *ati-kulva*-). Ossetic has similarly an early *l*. One can asert, therefore, that Indo-iranian still had *l* and *r*.

This is just what Sanskrit shows, still more clearly: *rám*, Lat. *rem;* *bhárati*, Lat. *fert;* *tráyaḥ*, Lat. *trēs;* but *lubh*- Lat. *lub-et;* AV. *álpa*-, Lith. *alpnas;* *palitá*- cf. Gk. *pelitnós;* *glā*-, cf. Kuchean *klāya* to feel ill; *plīhá* cf. Gk. *splēn* etc.

But in the Ṛgveda, which is localised in North-west India by its subject-matter, *r* is almost as exclusively dominant as in Iranian. In Grassmann's lexicon the words with initial *l* occupy two columns only against the 58 taken up by the words with initial *r;* and these words, like nearly all those which contain *l* in any position, occur in the relatively recent portions of the collection. A certain number are more frequently represented with *r* in the Ṛgveda itself. It should be remarked that, generally speaking, prehistoric consonant or vowel *l* acted upon *n* and *t* like consonant and vowel *r* to produce cerebrals.

In classical Sanskrit *r* is still dominant but less exclusively than in the oldest portions of the Ṛgveda. This is due first of all to the reappearance of doublets with *l* coming from Indoeuropean. We find them already in the later portions of the Ṛgveda: *plávate*, *plavá*- from the root, which is generally *pru*- (Gk. *plé-ō*); *lebhiré*, *álabdha*, *lebhāná* as against *rabh*- (Gk. *eilépha*); 3rd pl. aor. *alipsata*, pf. *ririp úḥ* (Gk. *aléiphō*); *calācalá*, *ávicācali* which are reduplicated formations of *car*-, AV. *cal*- (Gk. *pélomai*); *pulu*- (Gk. *polú*) and *miśla*- in compounds for *purú*- and *miśrá*- which the classical language alone retains. As against RV *vamrá*-, *vamraká*-, VS gives *valmíka*- (with a popular suffix containing long *ī*) cf. p. 111; for RV *raghú*-, *rap*-, AV has *laghú*-, *lālap*-, for RV *rih*-, *hvar*- the Brāhmaṇas have *lih*-, *hval*-; AV *gir*- is followed by Br. *gil*- etc. Classical Sanskrit has allotted different shades of meaning to some of these doublets, see p. 5.

p. 73 The retention and the reappearance of numerous words with Indo-european *l* warrant the assumption that they survived in actual speech. Their extreme rarity in the Ṛgveda is a sign of style rather than of dialect; they were evidently in familiar use and their relative rarity even in classical Sanskrit is an indication of the strength of the Brahman tradition. This accounts for the adjustment of an anecdote in the Śat. Brāh. III, 2. I 23 made by grammatical tradition: the conquered Asuras deprived of articulate

speech cry out *helávo heláv(o)*, or *hailo, hail(o)*; Patañjali gives *helayo helay(o)*, which would be a barbarism for *he'rayaḥ*. This also may partly explain the use made by the classical drama of Māgadhī Prakrit, which it reserves for low-class and ridiculous characters.

This Prakrit is, however, not altogether fictitious and there existed at least in one region and at one period a speech in which *l* not only existed, but contrary to the western and Iranian dialects absorbed *r*. The fact is attested by epigraphy; the inscription of Sutanukā at Ramgarh, and the Sohgaura (Gorakhpur) plate have *l* only. In particular, the inscriptions of Aśoka found in the basin of the Ganges and on the coast of Orissa have *l* regularly (the only Bairat inscription, on the western border of this area, has initial and intervocalic *l* (*lāja, cila-; gālave, vihālataṃ*) and also in a divided conjunct *(alahāmi* Skt. *arhāmi, paliyayāni)*, but *r* when the conjunct is preserved; *sarve; priyadasi, abhipretaṃ, prasāde (upatisapasine (-praśna-)* is a quotation like *laghulovāda-* and *aliyavasāni)*; the other Bairat inscription, which is a copy of a circular edict, has *ālādhetave* but *devānaṃpiye*. On the South border, Sanchi has *cila- (cira-)* and *sūriyike* (derived from *sūrya*); Rupnath uses both characters, following no apparent principle.

Although it appears evident that the centre of the languages with *l* only must have been the area round Benares and Patna (and this is confirmed by the very name of Māgadhī prakrit), it is difficult to account for the actual extension and date of the phenomenon. The R̥gveda supplies an example of *klóśa-* a cry, as against *króśati* and the adjective *krośaná* (Lith. *kraukti*), and two examples of *lóman* hair, in a late hymn, the ordinary form being *róman* (cf. Irish *ruaimne, ruamnae*). These forms and others found in old texts, e. g. VS *babhluśá*, RV *babhrú* (cf. Nep. *bhuro (*bhrūraka)* beside *bhālu (bhallūka)*; AV *likh-*, RV *rikh-* (cf. *riś-*, Gk. *ereikō*) set a difficult problem. Should it be supposed that in this as in so many other cases the characteristic change in Eastern Middle Indian is very old and contemporary with the earliest documents? Or should we recognise in it traces of a vacillation in Indo-european which has been frequently noticed and no doubt accounts for AV *lumpáti*, O. Slav. *lupiti*, Lat. *rumpo*; Skt. *luñcati* Lat. *runco* and *a fortiori* for the alternation *girati: gilati* IE *gʷer* and *gʷel* (see *inter alios* Meillet, *Ann. Acad. Sc. Fennicae*, XXVIII, p. 157)? None of the modern languages in fact unite *r* and *l*. Bengali clearly distinguishes old *r* and *l*; even in Bihari, which is the language spoken over the area of the old Magadha and

often also further to the West and East, initial *r* and *l* are distinct and *r* is the intervocalic form of *l* (Turner, *Festschrift Jacobi*, p. 36), a late form no doubt, for *Payalasa=P(a)ras* near Allahabad, in an inscription of 1135 (Sahni, *Arch. Surv.* 1923-4, p. 123). The same distribution is met with in Sindhi.

It may be asked whether the single *l* of the inscriptions denotes a single pronunciation. Grierson supposed that in certain cases at least it represents a dental *r*. This really implies that normal *r* is definitely a cerebral, a definition which only dates from Pāṇini and perhaps arises as much from its cerebralising effect on a following *n* as from actual observation. The hypothesis of a single character denoting several phonemes is made probable by the wide use of *s* made by Aśoka in the same inscriptions. The same problem is set by Prakrit *ṇ*. In any case this *l* is secondary, since the dentals cerebralised by contact with the liquid (type *vaṭṭ-* Skt. *vart-*) are precisely characteristic of the eastern inscriptions of Aśoka.

The tendency in question, strong though it appears in certain written documents, has left few other traces. In Pali we find *cattāḷīsa*, continued into Prakrit, which adds one to the list of problems set by numerals. Early dissimilations may explain Pa. *ludda (raudra)*, Pkt. *dalamāṇa- haladdā, dalidda-, daddula- (dāda- māna-, haridrā, daridra-, dardura-)* and the last may have been influenced by a common suffix found in *ruila- (rucira-)*. Pa. *antalikkha-* perhaps shows traces of dissimilation of two cerebral elements *(antarikṣa-)*, and this may also be the case in Pa. *elaṇḍa-, taluṇa- (eraṇḍa-, taruṇa-)*, Jaina *kaluṇa- (karuṇa-)*. Jaina *calaṇa-* foot, however, results from contamination of *caraṇa-* with *calati*. Finally *iṅgāla-* is more directly connected with the Indo-european word, Lith. *anglìs*, Pers. *nigāl*, Celt. *aingeal* etc., than Skt. *aṅgāra-* Some of these new forms are authenticated by the practice of such conservative languages as Marathi.

Thus the modern languages as a whole form a variegated picture closely resembling that of classical Sanskrit.

In Dardic a few cases of *l* from *r* conjunct are found: Pašai (ɷzbin), *lōmə*, Aškun (Majegal) *glām* village *(grāma-)*; Pašai *lām*, Aškun *klām* work *(karma-)*, Pašai (eastern) *θle* 3; this is only one of the quite recent changes which affect conjuncts in this area.

EVOLUTION OF CONSONANTS

I. FINAL CONSONANTS

In the script and according to the tradition of Sanskrit grammarians, there is no true final consonant except at the end of the sentence. Elsewhere it depends on the initial of the word following whether the final occlusives of the preceding word are voiceless or voiced, the nasals articulated or not and the sibilants represented by a voiceless aspirate or by *r*, or apparently entirely effaced.

The final consonant of a word in a sentence is not, however, treated as an internal consonant. An internal consonant is naturally voiced or voiceless and is only modified before another consonant. A surd persists before a syllabic consonant or a vowel: *yatna* like *yatate*. At the end of the word, on the contrary, it is the initial element of the following word, which determines the character of the consonant: thus *abharat tatra* but *abharad asmai*, *abharan naḥ*; and the end of the word has no fixed form. Custom decided on the unaspirated surd for the final consonant of the sentence, but the grammarians are not in agreement and Pāṇini makes no choice.

In a language in which the aspirates form an integral and significant part of the system, it is noteworthy that the final aspirated consonant of a word should lose its aspiration within the sentence as well as at the end of the sentence: RV X 86.17 *kápṛd viśvasmāt*, 101.12 *kápṛn naraḥ* as against the derived word *kapṛthá*; Bartholomae's Law operates accordingly only within the word: *adhāk* 2nd 3rd aor. of *da(g)h* as against *dagdhá-*; X 14.16 *triṣṭúb gāyatrí*; and in compounds RV *yutkārá- (yudh-)* but MS *nábhrāj-*. This part of the aspiration following the occlusive at the end of the word may be compared with that of the second consonant of a group. The aspiration, in fact, normally stands firm and it will be seen later that the occlusion of intervocalic aspirated occlusives was affected, while the aspiration remained in speech and script.

p. 76   Consonant groups, which are normal at the beginning and in the middle of words, are impossible finally. They are reduced to the first occlusive: *anák* nom., cf. the thematic stem *anakṣá-;* *áyok* or *áyog*, in accordance with the element following, for *ayokt* cf. *yuktá-* as against Av. *yaogǝt;* 2nd. 3rd. sg. *ákaḥ* for *akarš* and *akart* as against Av. *cōrǝt; párāṅ* for *parāṅkṣ* as against Av. *parǫš, jīván(n)* for *jīvants* as against Av. *jvǫs*. This is characteristic of Indian as compared with Iranian, and it is a striking fact that Persian inscriptions have a sign marking the separation of words, while Indian writing is continuous.

All these facts are sign of a weakness peculiar to final consonants, and indeed the early grammarians described final occlusives as "repressed" and "weakened", that is, implosives on the same level as occlusives in contact with following occlusives.

This evolution reaches finality at the time of the earliest Middle Indian in which even the implosion of the old occlusives (and *a fortiori* the aspiration which represented the old sibilants and the articulation of nasals) was entirely lost. All finals in Middle Indian are vowels and the new vowel finals have persisted up to the modern period. This has changed the aspect of the word and also that of the sentence, since the separation of words has again become the rule.

In modern times final consonants are stable. Traces, however, of unvoicing may be found in words ill-protected: Mar. *jāb* and *jāp* (Pers. *jawāb*), Chattisg. *supet, sarāp* (Pers. *sufēd, šarāb*).

II. INTERNAL CONSONANTS

In the middle of the word two types of change prevail: the weakening of intervocalic consonants and the adjustment of consonant-groups carried as far as complete assimilation. Both changes leave the division into syllables intact until a very recent period.

A) *Intervocalic consonants.*

The aspirated voiced consonants are the most feebly articulated of the occlusives, to the extent that *jh* had already, before our records begin, lost its weak occlusion over the larger part of the
p. 77   Indian area. Kafiri alone presents an exception: Skt. *han-*, Kati *žār'-*, Av. *jan;* Skt. *hṛd-*, Kati *zira*, Av. *zǝrǝd-*. The movement thus begun continued, when the aspirated voiced consonants

occurred in a naturally weak position, that is to say, between vowels. So from the Vedas onwards we find the endings -*mahi* etc. see p. 64. Simultaneously with the intervocalic surds, the aspirated consonants became voiced: Patañjali and Khāravela testify to *Madhurā* in the 2nd century B.C.: the Periplus gives Gk. *Dakhinabádēs (-paṭha-)*, and the Dutr. Ms *gadha, yadha (gāthā, yathā)*. These new voiced consonants met with the fate of all aspirated voiced consonants and were reduced to -*h*- in classical Prakrit.

This evolution affects all the aspirated consonants except the cerebrals and is found in all languages except Palestine Romany, in which *s* for *θ* from -*th*- and -*dh*- (through redevoiced *δh*) is distinguished from -*d*-, which has become *r* or has dropped: 2nd pl. -*s(-stha), gēsū (godhūma-), gus (gūtha-)*, but *piar (pibati)*, etc., see p. 18, 61.

There are other indications of the weakness of intervocalic occlusion. In a Yajurvedic formula assigned to the sacrificer or his wife *v* disappears after labialising the neighbouring vowels: *tóto* or *tóte ráyaḥ (tó* for *táva)*. This begins a development general in middle Indian: *o* for *ava*: Asokan *bhoti, hoti* (Gir. *bhavati); ai, e* for *avi:* Gir. *thaira-*, Pa. *thera- (sthavira-)* and similarly *e* for *aya, ayi* consistently (causatives in -*e*- etc.). The equivalence *aya/e, ava-o* perhaps explains the non-Vedic Sanskrit sandhi -*e a*-, -*o a*-> *e', o'.*

We have seen that the Rgvedic spelling *ḷ* for intervocalic *ḍ* and *ḷh* for *ḍh* is confirmed by a few instances of Skt. *l* from *d* in contact with *r* (cf. p. 55) and by *ḷ* regularly in Pali; *ḍ* persists when it is implosive *(dviḍbhiḥ)*, preceded by a nasal *(daṇḍá-)* or geminate *(viviḍḍhí)*. The weak form of *ḍ(h)* is still denoted in several modern languages by a special symbol, see p. 58.

The unaspirated occlusives have been affected in Middle Indian. The first stage was the voicing of surds: whence Gk. *Palibóthra (Pāṭaliputra)* in the first Greek geographies, *Naggalogai (-loka-)* in Ptolemy and *Dakhinabádēs* (Pa. *Dakkhiṇāpatha-*) in the Periplus; *Kirrádai (Kirāta-)*, cf. the simple voiced velar in Gk. *Minnagára (nagara-)*. Pali confirms this phase only in a particle *uda, udāhu (utá, utāho)* and a few isolated words, such as *sujā (sruc), mūga- (mūka-), koja- (kávaca-)*, ladle, dumb, coat of mail. It has even passed beyond this phase in exceptional cases such as *pivati (pibati), niya- (nija-)* and *suva- (śuka-)*, but it is generally conservative. Asokan also provides some examples: Kalsi gives *hida- (hita-)*; Delhi *libi (lipi-)*; *(hida) loga* at Jaugada contradicts

all the other examples of *loka-* and may be an error.   Sh. *ediśa-*,
Dh. *hedisa-*, Kal. *heḍisa-* like Pa. *edisa-* suggest a haplology of
p. 78 voiced consonants: **e(dā)disa (etādr̥śa-)* and Gir. *etārisa* (Śaur.
edārisa-) a dissimilation.   Dissimilation has produced the almost
total loss of *-t-* in *cavu(t)tha- (caturtha-)*, *cāvu(d)dasa*, cf. Pa.
cuddasa (caturdaśa).   Shahbazgarhi, otherwise so conservative,
gives *y* for *j* after a long vowel: *Kamboya-, raya-, samaya-*; the
frequent exchange of the suffixes *-iya-* and *-ika-* in Pali implies
a development of the same kind.   Preliminary palatisation of the
guttural is recorded at Kalsi: *vaḍikyā (vāṭi-, vr̥ti-)*, *thitikya-* and
lokikya-, but *kaligya-*   might at a pinch be a derivative in *-ya-*,
similarly *devadaśikyi* at Ramgarh.

The *y* treatment has been generalised later for the gutturals,
palatals and dentals, to judge from the Jaina spelling and from
modern results: Skt. *śatam*, Pkt. *sa(y)aṃ*, Mar. *śẽ*, Hin. *sai-kr̥õ*
centuries, and *sau* a hundred; Skt. *rājā*, Pkt. *rā(y)ā*, mod. *rāi* and
rāo ; except, in the case fo the dentals, the dissimilation already
mentioned (Pa. *terasa* thirteen, etc.), and for the *l* treatment in
European Romany and in Shina, *r* of Asiatic Romany and Khovar,
v. p. 18.   Just like the *v* from *-p-* and *-b-* and like *v* representing
-m- (see above), all these treatments imply a more or less durable
fricative stage.

The nasals, like the occlusives, are altered between vowels.   So
far as *m* is concerned, it becomes a fricative in the modern
languages, except in Singhalese, the North-west and, in certain
contexts, in Gujarati (R. L. Turner, *The Indo-aryan nasals in
Gujarati*, JRAS, 1915, p. 21): O. Mar. *gāṃvu*, Hin. *gāõ*, Skt.
grāma- ; there are a few cases in Middle Indian, but in association
with nasals and are thus due to dissimilation: Pkt. *namvai* from
nam-, Jaina *aṇavadagga-* for Pa. *anamatagga-*.

The dental nasal is cerebralised.   Vedic *sthāṇú-* has been
noticed on p. 57; Pāṇini recognises *daṇḍamāṇava-* pupil to be caned,
from *mānava*-man; and Patañjali writes *bhaṇ-* and Śb. *paṇáyya-*
praiseworthy, for RV *bhan-, panya-*.   Examples   are   fairly
numerous in Pali: *ñāṇa- (jñāna-)* as against *jānāti*, *pheṇa-* foam,
suṇa- and *suna-* dog, *saṇiṃ* for Skt. *śanaiḥ*, *dantapoṇa-* toothpick,
beside *pavana-* sieve, *jaṇṇuka-* beside *jānu-* knee etc.   In Prakrit
the rule is that every intervocalic *n* becomes cerebral.   Some
texts extend the same symbol to every position of *n*, a practice
confirmed by the grammarians.   This generalisation, which is
inexplicable, if it is only a question of pronunciation, can only be
a   provisional   graphical   device;   *ṇ*   no   doubt   represents   two
pronunciations.   As a matter of fact Aśoka's inscription at Kopbal

is already applying the Prakrit rule and appears actually to confirm it by dissimilations (Turner, *The Gavimath... inscr. of Aśoka*, p. 11-12); but it is a question whether, in this single instance, there was not an inversion of the symbols.

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The fact remains that the opposition of *n* and *ṇ* is that of strong and weak, corresponding to those of *p* or *b* and *v*, of *l* or *d* and *δ* or *y* and of *m* and *ṽ*. It is to be noted that Turner describes Gujarati *ṇ* as a nasalised fricative.

Now the opposition of initial or geminated *n* and intervocalic *ṇ* is normal in the Dutr. ms, in certain Prakrit inscriptions and in Jaina paper mss.; and it can be verified in a large group of modern languages, Marathi, Gujarati, Sindhi, Panjabi, Rajasthani, Kumaoni, popular Hindi, Dardic (where *ṇ* is a more or less nasal *r*).

On the whole, therefore, the intervocalic consonants constitute a class of weak consonants of more or less stability, which are opposed to the strong consonants provided by initial consonants and, as we shall see, by the old consonant groups.

B) *Consonant groups.*

The general trend of consonant groups in India is towards the assimilation of their elements, not only as regards sonority (the voicedness or voicelessness in Skt. perf. 1st sg. *véda*: 2nd *véttha*; loc. sg. *padi*: pl. *patsú*; aor. 2nd sg. indic. *śakaḥ*: impv. *śagdhi* etc.), but also as regards articulation. The first tendency operates in Iranian; the second is characteristic of Indo-Aryan.

Thus *ṣ* cerebralises a following *t: juṣṭá-* (Av. *zuṣta-*) in which *ṣ* comes from old *s*; *aṣṭā* (Av. *aṣṭa*) in which *ṣ* comes from an old palatal, cf. *aśīti-*; similarly a trace of a lost *ž* is seen in the cerebral of *réḍhi*, *leḍhi* he licks, from *lih-*, as against *edhi* be, from *as-*. The palatal occlusive operates on a preceding *s: káścit* (Av. *kaścit*); and on *n*, not only when it precedes (*pañca*, Av. *pañca*), but what is more significant, when it follows: *yajñá-* (Av. *yasna-*, Pers. *jašn* with two different treatments of the occlusive, but with the nasal intact in each case).

In sandhi a dental is merged with the following liquid when articulated at the same point: *áṅgāl lómnaḥ* from the limb, of the hair.

The case of two occlusives is particularly characteristic. In India at first two occlusives in a group persist, but as the explosion of the first consonant lacks sharpness, it is is also liable to fail in precision without diminution of intelligibility to the hearer and

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in this way the articulation of the explosive has encroached upon the implosive. Indian is sharply opposed to Iranian in this process, for in Iranian the articulation of the first occlusive is safeguarded by fricatisation and consonant groups preserve their double articulation, e.g. Av. *baxta-*, Pers. *baxt*, Skt. *bhaktá-* as against Pkt. *bhatta-*, Hin. *bhāt*; Av. *hapta*, Pers. *haft*, Skt. *saptá*: Pkt. *satta*, Hin. *sāt*.

Assimilation is characteristic of Middle Indian, but from the earliest times isolated words prove that it must have been much more wide-spread than the written tradition, influenced by etymology and morphology, allows to appear: *uccá* upwards from *ut-*, cf. Av. *usča*; *vrkkáu* kidneys, cf. Av. *vərəδka*; *májjati* dive, for **madj* cf. *madgú*. We have seen on p. 52 that Skt. *ch* and *jh* resulted from prehistoric assimilations of this type, long before the Greek tradition (c. 300 B.C.) which gives the name of the king Candragupta in the form *Sandrákottos*.

In the case of two occlusives therefore the facts are of general application and of long standing, but when the consonant group includes only one occlusive, the other element being a sibilant or a continuant, things become complicated.

i. *Sibilants*. In Iranian *s* opens into *h* not only initially and intervocalically, but also before a continuant (Av. *ahmi*, O. Pers. *amiy*: Skt. *ásmi*; Ov. *hazaṅrəm*, Pers. *hazār*: Skt. *sahásram*); but it persists before an occlusive: O. Pers. *astiy*, Pers. *ast (asti)*; Av. *paskāt*, *pasča (paścāt)*; as also the voiced sibilant Av. *zdī (edhi)*, *mazgəm*, Pers. *mayz (majjá̃)*, *asnāt* (from *azn-*, cf. *nazdyō*); and the hush-sounds: *vahišta-*, Pers. *bihišt (vásiṣṭha-)*, *ašta*, Pers. *hašt (aṣṭá̃)*; *mǐžda*, Pers. *mužd (mīḷhá-)*.

In Sanskrit *s* is so strongly established that with the help of a feeling for morphology it can, exceptionally, become occlusive: AV *avātsīh* from *vas-*; *mādbhih* from *mās-*, *uṣádbhih* from *uṣas-* see p. 69. In Middle Indian initial and intervocalic *s* are maintained and so generally in modern Indian. But the Middle Indian usage is not uniform, when *s* is in contact with occlusives.

In Pali and classical Prakrit the sibilant, as the weaker consonant in a group of two or as a continuant grouped with an occlusive, loses its proper articulation. There then remains only an aspirate, which, as is natural in a language possessing aspirated consonants, takes its place following the occlusive, even if the original sibilant preceded that occlusive: thus, *sukkha- (śúṣka-)* like *pakkha-* p. 81 *(pakṣá-)*; *hattha- (hásta-)*, *aṭṭha (aṣṭá̃)*, *bappha- (bāṣpa-)*, like *tharu-* or *charu- (tsáru-)*, *acchará (apsarás-)* and already, before the earliest records, the suffix *-cha-* from IE **-ske-*.

Aśoka has *pa(c)chā (paścāt)* throughout, and, for example, *pa(k)khi (pakṣin)* as in the pillar dialect. But the treatment of *kṣ* is nowhere uniform. Girnar and Shahbazgarhi have *saṁkhi(t)ta (-kṣip-)* like Pali, but *cham- (kṣam-* Pa. *kham-;* Pali has also the noun *chamā* earth, usually in the oblique case) and *chaṇ- (kṣaṇ-* Pali *khaṇ-);* Girnar has *chu(d)daka- (kṣudra-)* but Shah. *khudra-* and Kalsi *khu(d)da-.* Finally Kalsi has *chan-* but *kham-.*

Shahbazgarhi and Girnar agree in the medial group *st* (and *sth* which naturally goes with it) giving *asti, nāsti, hasti-, saṁstava-* and G. *vistata;* Shah. *vistrita-* as against Kalsi *a(t)thi, na(t)thi, ha(t)thi-, saṁthuta-, viṭhata-;* and therefore Shah. *graha(t)tha-,* which goes with K. *gaha(t)tha-* against G. *gharasta-* (cf. Skt. *gr̥hastha-*), seems due to eastern influence. But this can hardly apply to G. *thaira- (sthavira-)* or to *i(t)thī(strī),* which is also the Kalsi word, while Shah. has *istri* and *striyaka.* Moreover, *gharasta,* in which dissimilation of the second aspirated consonant by the first is hardly admissible, leads to the suspicion that the spelling *st* implies an aspiration; Shah. Man. *astin-* seems indeed to show dissimilation of the aspirate preserved in G. *hasti-.* This surmise is confirmed by a comparison of the groups with cerebrals, which Girnar records without aspirated consonants: *sesṭa- (śreṣṭha-), tisṭaṁto tisṭeya (tiṣṭh-), adhisṭāna- (adhiṣṭhāna-), sṭita- (sthita-),* and actually *usṭāna-* (cf. Skt. *utthā-*) under the influence of the preceding forms (cf. Pkt. *ṭhāi* and all the modern forms with initial *ṭh*), opposed to Shah. *sre(ṭ)ṭha-,* K. *se(ṭ)ṭha-,* Shah. *ṭi(ṭ)ṭhe, cira(ṭ)ṭhitika-,* Dha. *cila(ṭ)ṭhitīka-.* It must be admitted in any case that the western dialects were more conservative than the others.

It is no accident that Aśoka preserves the distinction of the old sibilants (even before *y;* gen. sg. *-assa,* but fut. *-iśśati*) in the Northwest, and even at Girnar the recent disappearance of *ś* explains the cerebral of *anusasṭi* (Michelson, *JAOS,* XXXI, 237) and of *ṣ* that of *osudha-.* The Northwest frontier dialects to-day still preserve the distinction between hiss-sounds and hush-sounds and have more or less clear traces of the conjunct sibilant. The representatives of Skt. *śuṣka-* (Pa. Pkt. *sukkha-,* Hin. *sūkhā,* Sgh. *siku*) are Kś. *hokh^u,* Sh. *šūku,* Rom. *šuko;* but Aškun *wāš* belly, is probably Skt. *vakṣaḥ.* Before dental or cerebral there are Sh. *hat,* Kś. *atha,* but Rom. *vast,* Kho. *host,* Paš. *hāst, hās (hasta-)* and Kś. *has^i- (hastin-);* Kś. *öṭh,* but Kho. *oṣṭ,* Paš. *aṣṭ,* Sh. *âṣ(aṣṭau);* Sh. *piṭu,* Kś. *peṭh,* Kati *pṭi,* but Rom. *pišt,* Ašk. *priṣṭi* back, Kal. *pišṭo* behind *(pr̥ṣṭha-, pr̥ṣṭi-);* the sibilant

clearly dominates the labial in Sh. *baṣ* lung, Ashk. *bas* steam *(bāṣpa-)*; Kash. *Bras- (Bṛhaspati)*, *pōš*, Kati *piš* flower *(puṣpa-*, but perhaps *puṣya-)*. This treatment already appears in Dutr. *puṣa* cf. *Poṣapuria* inhabitant of Peshawar, in the Ara inscription. It is found even before a guttural: Kash. *Bōsi* from *Bhāskarī*.

ii. *Continuants.* The problem raised by the contact of an occlusive with a continuant was capable of two solutions.   Either a lurking vowel element able to form a new syllabe disengaged itself from the vocalic vibrations of the continuant or else there was assimilation, as in the case of two occlusives, with retention or adaptation of the consonantal element e.g. *dv* > *dd*, *bb*; *tm* > *tt*, *pp*; *rt* > *tt*, *ṭṭ*.

The first process is not an innovation of Sanskrit.   From Indo-european onwards a continuant following a consonant could be represented by a vowel element followed by the continuant in its consonantal form (Skt. *puráḥ:* Gk. *páros;* Skt. *j(i)yā:* Gk. *biós;* Skt. *bhruváḥ:* Gk. *ophrúos* (gen.).   Variants with *y* and *v* are found in Indo-iranian and are particularly numerous in Vedic, if the metre rather than the spelling is taken into account.

We have O. Pers. *martiya-*, Av. *mašya-*, a trisyllable, Skt. *márt(i)ya-*, but O. Pers. *hašiya-* (in which the *š* proves the *ty* combination), Av. *haiθya-*, Skt. *satyá-*.   Generally, under a rule which dates from Indo-european the adjustment depends on the 'weight' of the syllable preceding the consonant group, which, for example, determines which of the two forms of the ending *-bh(i)yaḥ* is used (Meillet, *Introduction*[5], p. 244; Arnold, *Vedic Metre*, p. 85).   Moreover, even in Vedic in which the freedom allowed seems the greatest, the use is limited.   The ending of the gen. sg. *-sya* (except for one example), that of the absolutive in *-tvā* and, *a fortiori* the consonant groups of isolated words like *áśva-* (Av. *aspa-*), *catvāraḥ* (Av. *čaθwārō*), *tyájaḥ* (Av. *iθyeǰō* a dissyllable), *svapna-* (Av. *xᵛafna-*) are never separated.   Middle Indian affords proof that a vowel is still permissible in suffixes: As. Dh. *ka(t)taviya-* as against Shah. *ka(t)ta(v)va-*, cf. Pa. *kattabba-* (Girnār has still the old group *ka(t)tavya-*).   The suffix of the passive, type Pa. *puchh-iyati*, cf. Skt. *pṛchyate*, utilises this liberty to preserve the clarity of the formation, like the Vedic type *stuvanti*.   In isolated words assimilation is the rule: As. and Pa. *sacca- (satya-)*; Kals. *ca(t)tāli* four (but Gir. *catpāro* with assimilation of the voiced element, an intermediate *ᵗf* having become an occlusive immediately without assimilation of articulation having taken place), Pa. *cattāri*.   In the same way

initially Pa. *cajati(tyaj-)*; and *jiyā, hiyyo* are scanned like the
corresponding Vedic words *jyā, hyáḥ*.   This is also true for the
modern words derived from them (e.g. Nep. *jiuri, hijo*) no doubt
for the sake of clearness as much as from a genuine continuity.

In the case of the other continuants, Vedic metre and Middle
Indian show that the insertion was much more common than the
script reveals.   The Veda has numerous instances with *r: ind.ra,
piḷ.róḥ* and even *p.rǎk; dar.śatá-* before a sibilant and *yaj.ná-*
with a nasal.   This explains why the counterpart of Gk. *eruthrós*
is AV *rudhirá-* bloody (if not derived from or influenced by **rudhi-*,
cf. *Rudhikrǎ-*), and why the quantity of the initial syllable is
variable in RV *pǐruṣa-*, cf. Pa. *purisa-, posa-*, if the primitive form
is **pursa*, Italic **parso* (Benveniste) and not the more attractive
*pumvṛsa- (R.L.T.).   The forms in *-uru-, -uri-* are on the same
level and preserve the primitive 'weight' of the syllables
like *piḷ.róḥ* compared with *pitróḥ*.   This freedom in the
distribution of the syllables has inversely allowed the tendency
towards alternating rhythm (p. 38) to prevail in the formation
of the stems *jantú-* and *jánman-* beside *jániman-* or again of
kṛṇmasi beside *kṛṇvánti*.

In classical Sanskrit examples with *r* are rather rare, if, at any
rate, lexical forms like *candira-* moon, are not admitted, yet to
AV *rudhirá-* we may add Br. *dahara-* (Ved. *dahrá-*) little, Epic
manoratha wish *(*mano-rtha), ajira- (ájra-)*.   But the tendency
existed at all times and can be seen operating to-day in loan-words.

Corresponding to *tmán-* oneself, Pali has *tumo, tumassa* continued
by Sgh. *tumaha* (Ep. Zeyl., I, p. 73) and Shi *tomŭ* own, while Rom.
pes agrees with the regular phonology of *ātman-*: Pkt. *appa-*,
Hin. *āp* etc.   The representative of Skt. *prāpnoti* is *prāpunāti*
at Girnār, *pāpuṇāti* in Pali and opt. *pamuni (*pāmune)* in Dutr.,
forms which are confirmed by Nep. etc., *pāv-*, Guj. *pām-*, Sgh.
pāmin-.   There is nothing left of Pali *pappoti*.

The genitive of Skt. *rájā* is *rájñaḥ*, but *rājino* in Pali, *r < ā >jine*
lājine in Aśokan, *rāiṇo* in Prakrit beside Pa. and As. Gir. Shah.
rāñ(ñ)o, Pkt. *raṇṇo*.   All this disappears as the declension was
thematised.   The feminine *rājñī* alone persists in Nep. etc., *rānī*
queen.

The assimilation of groups with continuants did not take place
all at once; cf. Gk. *Sandrákottos* quoted above, in which the first
consonant group lags behind the second, and the western graphies
of Aśoka.   But it was under preparation in very early times,
at least if we may judge from the spelling RV *jyótiṣ-* from *dyut-*

to shine, and the consonant groups with *r* in which the oldest
grammarians record the relative importance of the occlusion,
p. 84 *puttra-* is the regular pronunciation warranted by the metre.
Pāṇini gives it as optional, but as not permissible in *putrādinī*
used as an insult.   The first syllable is regularly short only in
Buddhist Sanskrit, that is at a time when the consonant group
can hardly have actually existed.

The general principle is that the occlusive is dominant in all
positions: Pa. *sappa-* from *sarpa-*, *udda-* from *udra-*, *amba-* from
ām(b)ra-, *sukka-* from *śukla-* and *śukra-*, *raṭṭha-* from *rāṣṭra-*,
sakka- from *śakya-*, *vuccati* for *ucyate*, *addha-* from *adhvan-*, *magga-*
from *magna-* etc.   But the articulation of this occlusive may be
adapted to that of the continuant; thus dentals become palatals
in Pa. *sacca- (satya-)*, *majjha- (madhya-)*.

These adaptations are not uniformly made.

The dental group plus *v* gives a dental or a labial, without
regularity but not capriciously.   The Girnār inscriptions have the
absolutive in *-tpā(-tvā)*, *catpāro (catvaraḥ)*, *dbādasa (dvadaśa)*,
Kalsi has *ca(t)tāli (catvāri)* and preserves *duvādasa*. Pali has
cattāro and the acc. *taṃ (tvam)* but *bārasa* and on the contrary
preserves *d(u)ve* and *-tvā* for the absolutive.   It has also *dvāra-*,
while the name of the town *Dvārakā* in Skt. is Gk. *Barákē* in
Ptolemy; but it has *dīpa- (dvīpa-)* in agreement with Aśoka
(Jambudīpa), Ptolemy *(Iabadiou)* and Prakrit.   No doubt the
presence of a labial in this last word has influenced the choice of
the phoneme, but other treatments are, for the time being at least,
unpredictable.   For example, for the Skt. *ūrdhva-* Pali has *uddha-*
which classical Prakrit seems also to prefer, cf. Ass. *ūdha-* to raise,
Jaina prakrit has *ubbha-* (cf. Pa. *ubbha-ṭṭhaka-* erect), confirmed
by Mar. *ubhā*, Sdh. *ubho*, Panj. *ūbh* upright, Beng. *ubu;* it has at
the same time *uḍḍha-* confirmed by Sgh. *uḍu* and perhaps, a long
way from Ceylon, by Pašai *uṛe* above, Kś. *wǒḍ* top of the head.
Each word has its history, as yet not elucidated.   The important
point is that the variation reaches back to the beginning of Middle
Indian.

For *t* plus *m* Pali has only *atta- (ātman-)* and so Aśoka East and
North.   But As. Mans., Dutr. and Niya documents have *atva*,
and Girnār gives *ātpa-*, the first sign of the evolution leading to
Pkt. *appa-*, the form most current in Mahārāṣṭrī and in the drama
alternating with the first form.   *Appā* is principally a nominative,
but Bengali has *āpan* formed from the oblique stem and *āp-* is

almost universal (except Sgh. *at;* the Northwest forms in *tan-* are of Iranian origin; for Shi. *tomŭ* see p. 83, 203-4). It is remarkable that the forms *-ppa-*, *-ppana-* (Hin. *-pā*, *-pan*) of the suffixes *-tva-* *-tvana-* have no predecessors except at Girnār *(mahatpā)* and that Prakrit like Pali has admitted only *-tta-* *-ttana-*. Here a general borrowing may be suspected.

For the dental plus *r* group the distribution is on the contrary sharply geographical. In Asokan 'three' is *trayo* at Shahbazgarhi, and at Girnār *trī*, while 'thirteen' is at Mans. *tredaśa* and Gir. *traidasa*. But elsewhere we find *timni, tedasa;* Pali agrees with *tayo, tīni, terasa* (but note *aññātra, yātrā, utrāsa*). We find also Shah. *avatrap-, nikram-*; Gir. *brahmana-,* Shah. *bramana-* and *bambhana-* elsewhere; Shah., Gir. *parakram-* (Gir. also *parā(k)- kam-*) as against Kal., etc., *pala(k)kam-,* Shah, *agra-* but Gir. *a(g)ga-*. Now the modern Northwestern dialects preserve to some extent the groups with *r*: Kati *gŕom*, Ašk. *glām*, from which comes Maiyā *lām (grāma-)* ; Kati *bŕå*, Paš. *lāī (bhrātā)* ; Kati *pitr*, Paš. *puθle*, Shi. *pūç (putra-)*: Ašk. *drāṣ*, Kho. *droç*, Shi. *jaç (drākṣέ)* ; Kho. *droxum* (Gk. *drakhmέ*) as against Hin. *dām*. Romany has only the groups with the dental and labial: *phral* brother, *trin (rat* from *rātrī* is dissimilated from *⋆ratr*), *lindr* (Hin. *nīnd* Skt. *nidrā*), *drakh*, but *gav* village, town. Sindhi has only the groups with dentals, which it makes cerebral: *ṭre* three, *puṭrᵘ*, *ḍrākhᵃ*, *ninḍrᵃ*, but *caku (cakra-)*, *agi (agra-)*, *bhāī*, etc.

In the case of *r* plus dental, the result of assimilation is sometimes a dental and sometimes a cerebral.

Of the Asokan inscriptions it seems that Girnār prefers the dental: *(a(t)tha-, anuva(t)t-, ka(t)ta(v)va, va(d)dh-, k-i(t)ti)* and the eastern inscriptions the cerebral *(ki(ṭ)ṭī, va(ḍ)ḍh-, diya(ḍ)- ḍha-)*; but Dhauli gives *a(t)tha-, ka(t)ṭaviya-* and *ka(t)taviya-;* Kalsi *anuvaṭ-* and *anuvat-*; in the Northwest we find the notations *athra- vadhra-,* but *kiṭri-* and finally Shah. *anuvat-*.

Thus there is no uniformity either in dialect or in word. Similarly Pali has *cakkavattī* and Jaina Prakrit *cakkavaṭṭī*. In Pali *attha-* is the most frequent, but *aṭṭha-* is a current form, especially in compounds. The two forms are found together in a dialogue, the second in a question and the first in the reply of the teacher. On the contrary *addha-* is much rare than *aḍḍha-,* perhaps because it was driven out by the forms derived from Skt. *addhā* and *adhvan-*. Pali has always *kitti- (kīrti-), kattabba- (kartavya-),* both *vaddha-* and *vuddha-* old, *vaddhi-, vuddhi-* and the rarer *vuddhi-* growth *(vṛddha-, vṛddhi)* ; *vaḍḍhati* to increase, *vaḍḍhaki- (vardhaka-)* carpenter, but *vaddha-* thong, Skt. *vardhra-*. The two treatments

are therefore ancient. The modern practice is complicated and depends on the vocabulary, except in Sindhi, where according to Turner *r* plus *d* alone give a cerebral, while *r* plus *t*, *th* and *dh* give a dental. There is not even any uniformity in the individual language for particular words. For *gardabha-* Marathi has *gaḍhav* and *gadhaḍā*, and Singhalese *gäḍum̆bu* and *gadubu*.

In the western languages it frequently happens that *r* immediately preceding an occlusive or a nasal was transferred by anticipation to follow an initial occlusive: Kal. *pron* leaf *(parṇa-)*, *krom* work; cf. Shi *krom*, Paš. *θlām*; Guj. *trāb ū*, Sdh. *ṭrāmo*, Kash. *trām* from Skt. *tāmra-*; Sdh. *ḍrigho*, Kal. *drīga*, Kati *drgr* (for the apparent doubling of the *r*, cf. Kati *trūṭr* (Skt. *tantra-*), Shi. *ẓigu* from Skt. *dīrgha-*. Asokan had already given at Shabazgarhi *grabha-* *(garbha-)*, *kramma-* *(karma-)*, *prūva* *(pūrva)* and also, by a converse movement, *kiḷri* *(kīrti-)*, *vagra-* *(varga-)*.

There are similarly several treatments for an occlusive following a nasal. If the more prominent facts are considered, it seems that they are distributed on a geographical basis. The nasality, which is particularly strong in the dialect of Dutr. (cf. *pramuṇi*, Pa. *pāpuṇe*, Skt. *prāpnuyāt*; *namo*, Pali *nāvaṃ*; *vadamado*, Skt. *vratavantaḥ*, where *v* is nasalised, contrast the spelling *puṣaviva*, Skt. *puṣpam iva*) has in the first place provoked the voicing of the surd following a nasal: *paga-* *(paṅka-)*, *paja* *(pañca)*, *sabana* *(sampanna)*, *praśajhadi* *(-śaṃsanti)*, see below. This is confirmed by a proper noun, Gk. *Lambágai* Ptol. *(Lampāka-)*. The nasality has further produced absorption of the voiced occlusion (except in gutturals): *udumara* *(udumbara-)*, *banaṇa* *(bandhana-)*, *gamira* *(gambhīra-)*, *paṇida* *(paṇḍita-)*.

These two characteristics are found again to-day in Sindhi, in Lahnda and in Panjabi regularly and in Dardic and Romany sporadically:

i. Nasal plus surd: Sdh. *pañjāh^a* *(pañcāśat)* as against Hin. *pacās*, Kś. *pancāh* but *panzaha* made of 500 threads;

Sdh. *kaṇḍā*, *kaṇḍo*, Kś. *koṇḍ^u*, Eur. Rom. *kanro*, Nuri *ḳand*, Nep. *kāṛo:* an evolution followed up in Shi. *koṇū* *(kaṇṭa-)*;

Sdh. *pandh^u*, Panj. *pandh*, Nuri *pand*; Shi. *poně*, Paš. Kho. *pan* *(panthan-)*; Panj. Nep. *hiund*, Kś. *wanda*, Eur. Rom. *ivend*, Paš. *yemand*; Shi. *yōnŭ* Kho. *yomun* *(hemanta-)*;

endings of 3rd pl. Sdh. *-an^i*, Pj. *-aṇ*, Nuri *-and*, Eur. Rom. *-en(-anti)* Sdh. Panj. *kamb-*, Nep. *kām-*, Kś. *kam-* *(kamp-)*;

p. 87 Sdh. *saṅghar^a*, Panj. *saṅgal* Nep. *sāglo* and *sānlo*, Shi. *śaṇālī*; but Kś. *hōkal*, Guj. Mar. *sākaḷ* *(śṛṅkhalā)*;

Sdh. *vañh^u* Panj. *vañjh (vaṃśa-)*, Sdh. *hañj^u* Panj. *añjhū (aśru-)*; Sdh. *kañ(h)o (kāṃsya-)* ; Sdh. *hañj^u* Kś. *ünz*, fem. *anziñ (haṃsa-)*, cf. p. 88.

ii. Nasal plus voiced consonant:

Sdh. *kāno*, Panj. *kānnā*, Kś. *kān*, Shi. *kōn (kānḍa-)* ;

Sdh. Panj. Kś. *cum- (cumb-):* the occlusive tends to be effaced everywhere in this word except in Singhalese;

Panj. *bannh*, Kś. *bŏn*, Shi. *bŏn*, Nuri *-bani (bandh-)*; Kulu *bān* in which the sense of 'dam' taken from the Persian *band* shows that the tendency is still in operation.

However, one would be wrong in thinking that this tendency is exclusive to the western area. As. *paṇna-* five, in '15' and '25' of the eastern inscriptions, may rest on *pañña-*, just as *amna-* represents *añña- (anya-)* ; unless the palatal of *-daśa, -viṃśati* and *-śat* has produced *panda-* by dissimilation, which would moreover explain Khāravela's *paṃdarasa* (cf. Mar. *pannās* 50, Hin. *pacās* and *paītīs* 35, etc.) We find to-day in Maithili *cān (candra-)*, *ānh (andha-)*, *senhiyā* a man of Sindh; in Gujarati *săgaḷ-* to make into a chain, from *săkaḷ*, *ūmar (udumbara-*; *mb > m* is met with everywhere to some extent); in Bengali *cān*, *rān (randh-)* and the name of Bengal is pronounced *Bāṅāl* there. Maithili has even *āju āñu* beside *asuwā (aśru)*. Finally, everywhere except in the border languages, Oriya, Marathi and Singhalese, the ending of the 3rd plural of verbs has lost the occlusive of Skt. *-anti*. And if Pkt. and O. Hin. *-āhī* are the result of a succession of analogies, Beng. *-en* at least appears to preserve traces of a former *-nd* (but medial *-nt-* in the infinitive-absolutive in *-te* was protected).

The sibilants have a weaker occlusion than the true occlusives, but can behave like occlusives in contact with other phonemes. Hence the parallelism of the treatments of the sibilant plus *m* or *v* with the treatment of dentals under the same conditions: As. Shah. *spami (svāmin-)*, *spasuna (svasṝṇām)*, *spagra- (svarga-)*, Dutr. *viśpa- (viśva-)* and in modern times Kho. *ispusār (svasar-)*,

Kati *ušp*, Shi. *ašpo*, Kś. *hāš (aśva-)* in which the hush-sound shows that we have not to do with Pers. *asp*. Further, we find Shah. loc. sg. *-spi (smin)*, Kho. *ispa (asmat-)*, *grīsp (grīṣma-)*. This treatment is naturally exceptional; *sv* generally resulted in *ss* and as regards *sm* we have either the treatment of *s* before an occlusive, that is, *mh* (Gir. and Pkt. loc. sg. *-mhi* ; Pa. *gimha-*, Sdh. *ghīm^a*, Mar. *gīm*, etc.) corresponding to *nh* of *sn* (Skt. *snuṣ-a*, Pa. *sunhā* from *suṣṇā*, whence Mar. *sūn*), or else assimilation as in *sy*, *sr*, thus Asokan loc. sg. *-(s)si* (except in the West); Pa.

vissaradi (vismar-), whence Mar. *visar-* etc.; Pkt. *rassi-*, Hin. *rassī* etc. But we must not be misled by the distribution of the locatives in Asokan. It is the most western inscriptions, which contain the gen. pl. *a(p)phāka (asmākam)*, acc. *a(p)phe, tu(p)phe* of the pronouns beside the locative in *-si* and Kalsi gives *ta(p)pha (tasmāl)*. Thus Sgh. *äp* we, is explained together with Pra. Shi. (oblique) *asē*, Kś. *asⁱ*, Panj. *asī*, Sdh. *asī*. And we are not surprised to find *gᵉriš* afternoon, beside *ima* we, in Kati. The three treatments are all old.

One old grammarian has noticed the beginning of the unvoicing of the nasal. According to him, an *abhinidhāna* develops after a voiceless fricative before a nasal as before an occlusive; thus *grīṣᵖme, astnāti*. This explains Mar. *Viṭho-bā* beside Pkt. *Veṇhu-* from *Visṇu-* and perhaps, according to H. Smith Pa. DN *Kaṭṭhaka-* from *Kṛṣṇa-* and in any case modern Bengali *Kriṣṭo*. That also facilitates the interpretation of certain facts connected with the nasal plus sibilant group, the inverse of the former group, in which the occlusion in the *s* also disengages a small consonant: hence the Sanskrit sandhi *mahȧn-t-sȧn*. This, according to H. Smith, is why the future of *gam-* is *gaṃsāmi* in the Mahāvastu, but *gañchāmi* in Pali *(-m s >-n s > -ñch-)* like the aor. *agañchi (*agām-s-īt)*; similarly 3rd sg. fut. *hañchiti* from *han-t-siti*. And even over the territory where we find *sv, sm >sp*, the Dutr. ms gives *praśajhadi*, that is, *praśañjhandi* formed from *praśaṃsanti* through the intermediate *-śaṃś-, -saṃⁱś* (cf. *satsara* from *saṃsāra-*), *-śañcś-, -śañch-*, with the final voicing characteristic of the region. Panj. *añjhū*, Sdh. *hañju*, Maith. *añjhu* from *aśru*, Pkt. *aṃsu ;* Panj. *vañjh*, Sdh. *vañjhu* from *vaṃsa-* etc. see p. 87 are also explained in this way.

This consonant must have existed also between sibilants. It explains AV *avātsīḥ (avāsⁱsīḥ)* and *mātucchā* in Prakrit arising from the juxtaposed *mātus- ⁱssasā* (the first term in the genitive) beside *māussiā* arising from the compound *mātu-ssasā* (H. Smith).

The conclusion to be drawn from these examples is that conjunct consonants gave varied results and that these results are not distributed rigidly either from the phonological or from the geographical point of view. The dominant fact is that the normal result is a geminate consonant.

p. 89

The geminates still persist regularly in Lahnda and Panjabi (Panj. *makkhaṇ (mrakṣaṇa-)*, *kamm (karma-) ;* but *asīm* us *(asme)*, Lah. *assīṃ*). Sindhi poetry keeps the long scansion of *aji (adya) ;* in the Sindhi of Kacch and in Gujarati, in spoken

Hindustani and generally in all country dialects of the basin of
the Ganges, geminates often persist, but they can also be simplified
and it is the simplified forms that the literary languages prefer
to popularise: Hin. *bhūkhā* hungry, *khetõ mē* in the fields, *hotā*
being, but in the local dialects *bhukkhā* (*bubhukṣita-*), *khettõ*
(*kṣetra-*), *hottā* (Pa. *bhavanto*). The simplified form is normal in
Marathi. Finally in Singhalese all the consonants are single, just
as all the vowels are short (subject to secondary changes).

It may be said that geminates are simplified as early as middle
Indian in favourable circumstances, to wit, after a long vowel
and as a rule when the group comprises a sibilant or *r*. Hence
Pa. *pāti* beside *patta-* (*pātra-*), *dīgha-* (*dīrgha-*), *pekh-* (*prekṣ-*),
veṭh- (*veṣṭ-*), cf. p. 39; Pkt. *dīha-*, *peha-*, *vedh-*, *gāya-* (*gātra-*),
goya- (*gotra-*), *kheya-* (*kṣetra-*), *jāyā* (*yātrā*), *rāī* (*rātrī*), *āghā*,
p. p. *āhiya-* (*ākhya-*, N. B. a compound verb) and even *āya-*
(*ātman-*). In modern times Bengali shows *gā(y)* body (*gātra-*),
dā sickle (*dātra-*); Singhalese has *paya*, *pā* bowl (*pātra-*) (with
homonyms from *pāda-*, *payas-*), *mū* urine (*mūtra-*), *hū* thread
(*sūtra-*). The group *rṣ* thus becomes *s* in Pa. *sīsa-* (*śīrṣan-*),
Pkt. *pāsa-* (*pārśva-*), *phāsa-* (*sparśa-*), exceptionally *h* in Pali:
kahāpaṇa- (*kārṣāpaṇa-*) with secondary shortening of the first
vowel and in *kāhāmi* future of *kar-*, v. p. 65. Cerebral stops are
further modified in some languages, so while Marathi stops at
veḍh-, Bengali has *beṛ-*, Nep. *berh-* etc. ; similarly Nep. *koṛ* from
kuṣṭha-, *kharāu* from *kāṣṭhapādukā*.

With these exceptions the geminates even when simplified
remain strong consonants. We saw that final and intervocalic
consonants were on the contrary doomed to destruction or at
least were weakened. This determines the character of the
Middle Indian word, which contains strong consonants only when
initial or geminate and has none in final position and in which
hiatuses occur very frequently. Later, the fall of vowel finals,
the simplification of geminates and the reduction of hiatuses gave
Indo-aryan a normal framework, in which, however, the grouping
of consonants still presents difficulties.

The dominant character of the consonantal system of Middle
Indian is then the constant opposition between the occlusives,
whether initial, conjunct or geminate and the spirants which
were preserved more or less between two vowels. Examples of
dental surds are: *tila-*, *anta-*, *putta-* (*putra-*), *bhutta-* (*bhukta-*):
Saur. *-adi*, Mah. *-ai* (Skt. *-ati*); *thaṇa-* (*stana-*), *manth-*, *natthi*
(*nāsti*): *mehuṇa* (*maithuna-*) and so forth.

The case of the Sindhi dentals (the strong representatives of which are accompanied by a glottal movement) is curious. Here the cerebral is the strong form of the dental: *ḍahī (dadhi)*, *saḍᵘ (śabda-)* like *ḍūmⁿ* Dom, *haḍᵘ* (Pkt. *haḍḍi-*); *d* exists only after a nasal: *ḷandᵘ (ḷantu-)*. We saw that *ṇ* is the weak form of *n*; *ḷ* where it exists (Singhalese, Marathi, Gujarati, Rajasthani, Panjabi and Oriya) is the weak form of *l* and many languages distinguish *ḍ* from *ḍḍ* in various ways (Turner, *Fest. Jacobi*, p. 34).

The system was extended to the continuants (for example, *m* which except in Dardic, Singhalese and Gujarati has a weak form *v*) and this in both directions. Indeed *-v-* the weak form of *b* is able to assume the form of *b* as its strong form. This is what has happened in the case of medial geminates from the Pali period: *kaṭṭabba- (kartavya-)*, as against *vagga- (varga-)*; Sindhi is still in the same stage *vāghᵘ (vyāghra-)* tiger, but *cabaṇᵘ (carv-)* to chew, *kaṭabᵘ (kartavya-)*. Almost all the Hindi group, the eastern group, a small part of the Dardic group (Khovar, Shina, Kalaša, Tirahi) and European Romany have also *b* initially; *v* no longer exists except intervocalically (Singhalese, Marathi, Panjabi, Kaśmiri, Kafiri and Asiatic Romany, which have kept *v* in every position, are exceptions).

Similarly *y* is the weak form of *j*. Sindhi, Kaśmiri and Singhalese still distinguish them initially, although generally strong *y-* is confused with *j*; Sdh. *jo*, Kś. *yu-* (Skt. *ya-* who), but Sdh. *jibhᵃ*, Kś. *žev*, Sgh. *diva (jihvā)* like Sdh. *ajᵘ*, Kś. *az*, Sgh. *ada* (Pkt. *ajja*, Skt. *adya*).

For the sibilants see p. 70.

III. GEMINATION

We have seen that Middle Indian and subsequently Modern Indian are full of geminates resulting from old groups or from some analogous situation: e.g. in Pali the initial consonant of the second member of a compound can be doubled: *paṭi-kkūla-*, Skt. *prati-kūla-*, contrary, like *paṭi-ggaha-* Skt. *prati-graha-* acceptance; in Hindi just as we have *maṭṭī* and *māṭī* earth, *makkhan* and *mākhan* butter, so we have *mīrī* and *mirrī*, first place at play (Arab. *amīr* chief), *addal* lesson (Arab. *'adal* justice). The initial letter of enclitics is also doubled in Middle Indian, as otherwise it might have been modified like an ordinary intervocalic consonant: Pkt. *tti (iti)*, *vva (iva)*, *ccea (caiva)* cf. O. Mar. *-ci* but Sdh. *-j* even, and similarly in accessory words like Skt. *h(i)yáḥ* yesterday,

a dissyllable, in which the disappearance of the continuant would have endangered the actual word; Pa. *hiyyo*, Deśī *hijjo*, Eur. Ṛom. *ij* etc. (this word, by the way, is not found in all languages).

An analogous case, yet of great importance, is the gemination (even if it is only graphic) in learned words (Pkt. *saveggaṃ* etc.). This device was necessitated by the deterioration of consonants and the consequent ambiguities of meaning: *vea-* was *vega-* or *veda-*, *loha-* represented *lobha-* and *loha-*, etc. Such cases must have occurred in writing and even in speech more often than the grammarians, preoccupied with defining the changes which took place, are prepared to admit.

But besides this and to an extent which cannot be realised from the written evidence, there were during every period geminations expressing emphasis or simply popular; and in spite of the strictness of orthographic tradition, the earliest Sanskrit provides instances and vouches for the significance of those which are more recent.

Leaving aside the form of address *amba*, resting on *amma*, which is of Indo-european origin (see Meillet, *BSL*, XXXIV, p. 1), the earliest use of gemination is the strengthening of suffixes in demonstrative formations: RV *itthá*, *itthám*, thus, precisely, as against e.g. *kathá*, *kathám* how?. In Pali *ittham* is found once more, but the other suffix has assumed a local signification (due to the influence of nouns in *-ttha-* arising from *-stha-*?) and becomes *ittha* in this world, and, by adjustment to the normal stem of the demonstrative, *ettha* here, now, *aññattha* elsewhere *(aññathā* otherwise)*, *kattha* where? etc. This series has survived: Sgh. *eta*, Mar. *eth*, *ethe*, Panj. *itthẽ* here Hin. *it ut* here and there etc.
p. 92 On this model Pali has created *etto (itaḥ)*, *ettato* thence, *ettāvatā* so much.

In the magical hymn which ends the first book of the RV we find masc. *iyattakáḥ* fem. *iyattiká* so small, quite small, derived from the neuter *iyat* of this dimension, cf. *kíyat kívat*, with the suffix *-aka -ikā*, cf. Pa. *yāvataka- (-ta-* is found only in *dvitá-* etc.). It is the first representative of the Pali series *ettaka-*, *tattaka-*, *yattaka-kittaka-* normalised in Prakrit *(ettia-*, *jettia-*, *kettia-)* and still alive to-day: Nep. *eti*, *itro*, Hin. *itnā*, *ittā* so much etc.; Eur. Rom. *keti* Nuri *kitra*, etc. how much?.

From the point of view of Middle Indian there is no longer any question of suffixes, but it is the first consonant which is doubled. Hence the formation of *evvaṃ* thus, in Prakrit, and of *ekka-* one (Hin. etc., *ek*).

The emphatic force of gemination is vouched for by another emphasizing process used by Middle Indian in the same group

of words, the prefixing of an aspirate (the particle *ha* is, on the contrary, postposed). We may add to the examples given on p. 67 Guj. *hoṭh* beside *oṭh* lip; Sdh. *hik* one etc.

Similarly forms like Hin. *jab* when, opposed to *jo* if, *tab* opposed to *to* then, represent a type *javva *ṭavva (*yāvat ṭāvat*). The Panj. postposition *uppar*, Hin. *ūpar*, *par*, Eur. Rom. *opre* above, beside O. Mar. *vari*, Mar. *var* upon, goes back to *uppari*. The same thing occurs in adverbs, Apa. Bhav. *sanniu* gently (*śanaiḥ*) Mar. *muddām* absolutely (Arab. *mudām* continually). As regards adjectives Pali already has *ujju-* beside *uju-* straight (*r̥ju-*). Like the Romance languages Bengali introduced gemination in the words for "all', both the inherited and the learned: *sabbai* (*sarve*), *sakkalai* (*sakala-*). The list would no doubt be longer if actual pronunciation rather than script were taken into account: Mar. *ālā̃* is now pronounced *aṭlā̃* etc.

Gemination extends beyond pronominal stems and adverbs or adjectives which are readily made to express emphasis. A few isolated facts afford a glimpse of this tendency. Pali *katthaṭi* Mbh. *katthate* boasts, is evidently related to *kathā* story, *kathayaṭi* relates (the connexion with *kathā*, *kathám* is lost here). Some names of animals should be noticed (cf. Lat. *uacca* as against Skt. *vaśā́*), Ved. *kukkuṭá-* cock (O. Slav. *kokotŭ*), lex. *bukka-* goat (cf. Av. *būza*). AV *kurkurá-* is prior to *kukkura-* dog, but Hin. *kuṭṭā*, Mar. *kuṭrā* have a geminate, which is wanting in Sogdian *kut-*, Śugni *kud*, Bulgar. *kŭtər* (call to the *kūče*); similarly the word for "owl" (also "idiot") Skt. *ulūka-*, Hin. *ullū*; no doubt that for "bear" *bhallūka-*, IE *bheru- cf. OHG *bero* as against Škt. *babhru-* and IE *bhrūro-*, Hin. *bhūrā* brown, and even the word for "peacock", As. *ma(j)jūla-*, Shah. *ma(j)jura-* and Nep. *mujur* as opposed to Skt. *mayūra-*, As. Gir. Pkt. *mora-*, Hin. *mor*.

Certain words for parts of the body are particularly affected. Pali has *jaṇṇuka-* knee; Mar. *kullā* and even *kulā* buttock, require *-ll-*, cf. Deśī *kūlam* rear-guard, Lat. *cūlus*; Panj. *cutt* Kś. *ċoth*, Mar. Guj. Hin. *cūt*, etc. female pudenda, whatever be the origin of it (Dravidian? cf. Tam. *cūṭṭu*) all have a geminate (Deśī *kollo kullo* neck, probably Dravidian, cf. Kan. *koral koḷḷa* is, on the contrary, to be explained by old *-rl-*). Similarly Mar. *śep* tail, *śeph* penis, Deśī *chippa-* as against Skt. *śepa-*; *nakh* nail is no doubt a learned form used to give body to the word (cf. Panj. *nahũ*, Eur. Rom. *nai*). Mar. *thān* is also a learned word, but of unknown origin as opposed to Panj. *than* (*stana-*; *stanyam* is "milk"). Finally Pkt. *nakka-*, which gives the modern words for "nose" is obscure.

But emphasis cannot explain everything: *ekka-* is understandable; but why Panj. *unnīh* 19, opposed to Sdh. *uṇīh* Mar. *ekunīs* and why Hin. Panj. *assī*, and Sdh. *asī* 80 *(asīti-)* and Hin. Panj. *navve* Mar. *navvad*, Beng. *nabbai (navati-)*, unless perhaps there is an analogy with Pkt. *saṭṭhi* 60 and *sattari* 70? And why has Prakrit both *lakkuḍa-* and *lauḍa-* stick, *kīla-* and **killa-* wooden peg? One can understand a Hin. verb *billānā* opposed to Mar. *viḷaviṇē* to lament *(vilapana-)*; but why Pkt. *callai*, Mar. *cālṇē*? **Calyati* is improbable. Similarly, Desī has *koṇo* corner, and *koṇṇo* corner of house, side by side with each other (Marathi has *koṇ* and *kon*), *talaṃ* layer, *taḍai* and *taḍḍai* he stretches, *oggālo* and *oālo* brook.

No doubt a more general tendency may have intervened. In Panjabi a word of the type *calan* is pronounced normally almost as *callan* (according to Grierson). It seems that the spoken languages, if they appear to preserve the old geminates, do so perhaps because they like to double the first medial consonant: Hin. *loggō pe* on the people, *bāssan* pot. The question has not been studied.

Finally we have to notice the suffixes with geminates. Pali contributes *duṭṭhulla-* wicked, *aṭṭhilla-* ox-bone used for massage, to which we may add *mahallaka-* from *mahad-la-*, cf. As. Delhi *mahālaka-*; these suffixes in *-ll-* have been very popular, particularly for enlarging past participles (see p. 165). The formations in -*kka-* are of great importance in derivation: Hin. *uṛāk* nestling on its first flight, *laṛākā* disputant, Sdh. *piāku* drinker, Ass. *thamak-* stop *(stambh-)*, *banak-* decorate *(varnayati)* etc.

CONCLUSION

If we consider the Indo-aryan phonetic system as a whole, both in time and space, we are struck by the stability of its elements. Conservative though the orthography of the cultivated languages may be, we do not see those irreparable gaps between the written and spoken language, such impressive examples of which are provided by French and English. One may hear the Urdū word derived from the Persian *umed* hope, pronounced *u(m)mīd* and it will at once be known that the speaker is a Musulman, who prides himself on a good Islamic education, but the same man will never pronounce the *e* of a word of Indian origin as *ī*.

The reason why the phonetic system has remained stable through the course of history, is really because the principal changes were made or initiated at the beginning of that history. That is true

for the creation of cerebrals, the loss of the vowel ṛ and the de-occlusion of aspirated consonants. The only true innovation, that is, the simplification of the recently introduced system of the three sibilants, was not brought to completion in every instance and even when it was, it was occasionally (in Marathi and Bengali) converted into a pair consisting of a hiss-sound and a hush-sound, the Indo-iranian formula, which seems more normal and more stable than the tripartite grouping. Apart from these important developments, any novelties are only partial and local, such as the palatalisation of *u* in Kafir, the vowel harmony of Kaśmiri, the dentalisation of palatals in Singhalese, Kaśmiri and (partially) in Marathi and the appearance of recursives or of fricatives.

But even if the elements of the system remain the same, the parts which they play have changed. *E* and *o* for a long time past have ceased to function as diphthongs and modern *ai, au* are the results of hiatus and have no special morphological value. Consonant groups no longer exist, except in recent unstable formations. In particular the distribution of their component parts depends on their position in the word. Vowels, which are not in dominant position, can lose their natural quantity and change their *timbre*, either by becoming closed *(e > i)* or neutralised *(i > a*, zero) or, finally, by assimilation with the adjacent vowels (Singhalese, Kaśmiri). The distribution of consonants depends
p. 95 less upon their etymology than upon their relative strength, which was determined in Middle Indian by their context.

The seriousness of the morphological consequences of this new equilibrium of the phonetic system is easily realised. The Sanskrit system was, even if irregular, at least clear. Its vowels had a definite *timbre*, a definite quantity, were capable of definite combinations and independent of the adjacent consonants. The consonants were more liable to variation, but their variations were closely connected with the immediately adjoining phonemes (except *n* cerebralised at a distance), the groupings of which remain easy to analyse in spite of adjustments (except *ch, jh*, which just because they are Prakritic are outside the Sanskrit scheme). A phonetic system of this kind is well adapted to a morphology the texture of which pervades the word:—its alternations of the vowel elements of roots and suffixes and its consonantal contacts between root and suffix, suffix and ending. From the day on which these alternations disappeared and the line of demarcation between the phonemes was blurred, the system was bound to be transformed.

PART II

MORPHOLOGY

The words of Vedic Sanskrit like those of Indo-european, contain within themselves varied and complex symbols which denote on the one hand their relation to the central idea of the root and on the other their function in the sentence. The order of the words, on the contrary, has no grammatical significance. The symbols in question are the various phases of the elements composing the word and, in particular, the vowel alternations, the action of tone, which is often bound up with the latter; the presence or absence of more or less significant affixes (suffixes and nasal infixes) and finally the endings.

A certain number of alternations have only a phonological value. They are, for example, those relating to sibilants (*as, ts ; is, kṣ* etc.); the cerebralisation of nasals *(yāna-; prayắṇa-)* and the grouping of occlusives *(dádāti, datte, dehi; viśah, viḍbhiḥ, vikṣú)*; and finally the two variants of the Indo-european labiovelars depending on the phoneme following. This last alternation has been partially eliminated in Sanskrit; e.g. opposed to Av. *kō* who, gen. *čahyā*, Sanskrit has *kah*, gen. *kasya. Kim* is new as opposed to *cit*, Av. *cit.* The alternations of morphological significance affect the vowels.

The earliest known etymologist, Yāska, having to explain the word *śeva-* (X 17), derives it from *śiṣyate*, appealing to the substitution of the noun-suffix *-va-* for *-s-* on the one hand and to the guṇa or variant of the root-vowel on the other. He is therefore aware that *śe-* and *śi-* are two phases of one and the same root. Elsewhere (II 1-2) he admits the regularity of the disappearance of the vowels in *pra-t-tam* given, from *dā-; s-tah* "the two are" from *as-; ja-g-muh* they went, from *gam-* and the disappearance of the syllabic consonants in *ga-tam* went, again from *gam-* and in *rājā* king, from *rājan-*. He perceives the connexion of *pṛthuh* wide, with *prath-*, of *ūti-* protection, with *av-*. Even if he draws erroneous conclusions from these principles, and appeals to others still more inadmissible, the fact remains that he has taken into account some of the alternations, which affect roots in Sanskrit

p. 100   as in ndo-european.   Later grammarians perfect his theory and
recognise a long grade or *vṛddhi.*

There is in fact in roots and in a certain number of morphemes
a fixed consonantal skeleton with variable vowels or rather with
one variable vowel, which in Indo-european took the forms of
e, o, ē, ō or zero.   In Indo-iranian, in consequence of the confusion
of IE *e* and *o* with *a*, the phonetic system allowed only one quanti-
tative variation, *a, ā,* and zero *(bhar-, bhār-, bhṛ-).*

A further complication arises from the nasals.   The other
syllabic consonants had *ṛ, i, u* as their vowel phases, while in
Indo-iranian syllabic *ṃ* and *ṇ* had become *a*.   This vowel then
was the sign of the guṇa or full grade in roots with consonants and
syllabic consonants, but of the zero grade in roots with nasals.   The
guṇa of roots with nasals was denoted by the simultaneous presence
of the vowel and the nasal consonant and not by the vowel alone
(ga-, gm-: gam-).   As regards the other syllabic consonants, the
guṇa works on different lines.   *E* and *o* play the same part as *ar,*
because they represent the old diphthongs *ay, *aw* simplified
and in the same way *ai, au,* representing *āy, āw,* correspond to *ār.*

The combination of IE *ə* with the vowel *e/o* is the origin of
an Indo-iranian alternation of *ā, i,* zero (this last being the
treatment of *ə* before a vowel), e.g. *ptā-, pati-, pat-; mahá-m,
máhi, mah-é.*   This alternation was much more effectively
preserved in India than in Iran, where the *i* in question disappeared
between consonants, except in the initial syllable *(pita,* but *dug(ə)
dā)* and the long grade is generalised in the verbs: Av. *stāta-,*
Skt. *sthitá-,* from *sthā-.*

When the medial phoneme in dissyllabic roots containing *ə*
was a syllabic consonant, contraction was produced with results
which varied according to its nature: *bhavi-: bhūtá-; krayi-:
krītá-;* but *pari-: pūrṇá-; dīrgha-,* compar. *drághīyaḥ; jani-:
jātá- (jñātá-); śrami-: śrāntá-.*

The inconsistencies due to phonetic developments partly peculiar
to Sanskrit, make Vedic morphology extremely complicated and
consequently impair its resistance to the forces of destruction.
The alternations can apply to all the elements of the word, and
are balanced against each other: for example, the zero grade of
one element is opposed to the more or less strong grade of the other:
stáu-mi I praise, pl. *stu-máḥ;* acc. *sắn-u* peak, abl. *sn-óḥ; dán(ts),*
tooth, gen. *dat-áḥ.*

p. 101   The process is disguised in nouns with the acc. sg. ending *-am,*
for example, for *-am* is the substitute for syllabic *ṃ:* hence
dánt-am opposed to *dat-aḥ;* or in a verb in which the strong root
was preserved with weak forms; *ád-mi,* but *ad-ánti.*

These subsidiary complications contribute to the increase of confusion in the old system, and, as will be seen, all these alternations gradually became eliminated. To replace them a series of formations, which were already abundant in the prehistoric period, the so-called thematic formations, were used. These are those which contain a vowel, the IE *o*, Ind-ir. and Skt. -*a*-, attached to the radical (composed of the root followed by its suffixes), the vowel-system of which remains stable and the accent fixed.

The division into thematic and athematic is the key to the history of Indo-aryan and is as important in the verb as in the noun.

THE SANSKRIT NOUN

STEMS

The nouns which Vedic has at its command are largely Indo-iranian, and their formation follows the same principlès and to a great extent is composed of the same elements as Iranian and Indo-european nouns.

Nouns can be simple or compound and compounds are formed by processes which date from Indo-iranian and from a still earlier date.

Vedic in fact preserves and develops all the forms of Indo-european compounds. One only, which contained a verb-form governing a noun occupying the position of second member of the compound, a construction sparingly used from the outset, disappeared after the Veda. This is the type *dắtivára-* giving favours, *trasádasyu-* frightening the enemy, and (this is Indo-iranian) *kṣayádvīra-* governing men. The most important types are three in number.

Coordinative compounds (dvandva) join adjectives together; *nīlalohitá-* blue-black, AV *dakṣiṇasavyá-* right and left; but especially substantives. Indo-iranian makes a kind of juxta-position, the two terms of which are in the dual: *dyắvā-pṛthivī*, gen. *mitráyor-váruṇayoḥ*, cf. Av. dat. *āhuraēibya miθraēibya*; Sanskrit generally reduces the first term to a stem *indravāyú*, and then makes a plural of the whole under pressure from the meaning: *aho-rātrắṇi* day and night(s) or a collective neuter: *iṣṭāpūrtám* sacrifice and gifts, AV. *kṛtākṛtám* what is done and not done.

Determinative compounds (tatpuruṣa) express various dependent relations rather than those of apposition or qualification: *vṛṣākapi-* man-monkey, *pūrvá-hūti-* morning invocation; *viś-páti-* master of the house, *gohan-* killer of cows, Av. *gaoǰən-*. The second member often assumes special forms in compounds: *havir-ád-* eating the oblation, *vásu-dhiti-* possessor of property, *loka-kṛ́t-* creator of space, cf. Av. *nasu-kərət-* set over corpses. Absolutives

or participles properly so-called are not found in this position, but the verbal in -*ta*- is common: *gójāta*- born from a cow, *áharjāta*- born in the day, cf. Av. *haδo-zāta*- born with, near relative. The first member sometimes retains its ending: *abhayaṃkará*- reason for security, cf. Av. *vīrəm-jan*- man-killer; *divikṣít*- living in heaven. The first type, which provided a valuable rhythmic device, when several short syllables succeeded one another, was amply developed in Sanskrit.

The possessive compounds (bahuvrīhi), by the richness and great flexibility of their use, were a great and original feature of Sanskrit composition: *rā́ja-putra*-, having kings for sons, *áśva-pṛṣṭha*- borne on horse-back: AV *yamá-śreṣṭha*- of whom Yama is the best, *páti-kāma*- desiring a husband; cf. Av. *hazaṅra-gaoša*- he who has a thousand ears; and with a governing preverb *anu-kāmá*- according to desire, *ántar-patha*- being on the way. Sanskrit creates a special type the first term of which is a verbal in -*ta*- which goes so far as to govern the following noun like a verb: *práyata-dakṣiṇa*- he who supplied the pay; classical literature makes great use of this type, as an equivalent for relative clauses.

Bahuvrīhis readily accept suffixes, which have no special value (samāsānta); *prátyardh-i*- he who receives half, *suhást-ya* with fine hands, *mahāhastin*- with great hands, *saṃgav-á*- time of the assembling of cows, *trikadru-ka*- with three ewers; cf. Av. *dawrā-maēšī* with black ewes, *hu-raiθya*- with the fine chariot, *urv-ā́pa*- with salt waters. The three last types were extended more and more, and the last two in particular strengthen the general tendency towards thematisation. In fact, the use of the -*a*- suffix was indefinitely extended beyond the bahuvrīhi class and tended to be extended still more either by elision of a final consonant: *ṣaḍahá*- duration of six days, or, more often, by enlargement: *urū-ṇasá*- broad-nosed, *pūrvāhṇé* in the morning. This allowed all kinds of complex relations to be expressed in a simple and normal manner.

The frequency and the dimensions of compounds in the Veda are almost the same as in Homer. They multiply enormously in the classical language, but that is a use which concerns style and not the actual history of the language. It is explained, no doubt, by the taste for loose logical relations and static pictorial grouping. So far as form is concerned, these long compounds
make for reduction in the number of the complicated Sanskrit inflexions; but this last reason is true only so far as authors, who took pleasure in parading their grammatical knowledge, might have to humour audiences, to whom Middle Indian was by this

time archaic and relatively complicated. However that might be, Aśoka's Middle Indian, for example, and the modern languages show that the use of compounds was rather restricted.

From the point of view of the formations of stems, the second terms of compounds, which are in principle the only terms capable of being declined, are treated as simple.

Of the latter some root-nouns have preserved the old alternations: nom. pl. *ā́paḥ*, gen. *apā́m* (Av. *āpō*, *apąm*); acc. sg. *pā́dam*, gen. *padáḥ* (Av. *pādəm*, *padō*); nom. sg. *bhrūḥ*, gen. *bhruváḥ* (Gk. *ophrûs*, *ophrúos*); nom. sg. *kṣā́ḥ*, gen. *jmáḥ* and by analogy *kṣmáḥ* (inversely Av. nom. *zå* with the consonant of *zəmō*); *gáuḥ*, *gā́m*, gen. pl. *gávām* (Av. *gāuš*, *gąm*, *gavąm*); *śvā́*, *śvā́nam*, gen. *śúnaḥ* (Av. *spā*, *spānəm*, *sūnō*); *dā́ḥ*, dat. *-dé* (cf. Av. pl. *dåṅhō*) etc. The alternation is lost in *vā́k*, *vā́cam*, instr. sg. *vācā́* as against Av. *vāxš*, *vača*; in *bhrā́ṭ* (agent noun), instr. *bhrājā́* (noun of action). It has been wanting since the Indo-iranian period in *viś-* (Av. *vīs*, O. Pers. *viθ-*), *kṣap-* (Av., O. Pers. *xšap-*) and from the Indo-european period in *mās-* (Av., O. Pers. *māh-*). These nouns are only rarely and incompletely attested. The nom. sg. in particular is rare : *nák* is met only once as against acc. *náktam* (adv.), dual *náktā*; but for the gen. sg. *āsáḥ* (AV. *åṅhō*), the nominative is *āsyám* (Lat. *ōs*). The instr. sg. *rucā́*, dat. *rucé*, nom. acc. pl. *rúcaḥ* are opposed to Lat. *lūx*; gen. sg. *vanáḥ*, *vánas-(páti-)*, pl. *vanā́m* have nom. sg. *vánam* wood; gen. sg. *hr̥dáḥ* etc. are opposed to *hŕ̥dayam* and *hā́rdi*; nom. acc. pl. *udā́* to sg. *udakám*; and *dr̥śi dr̥śé* infinitives. Many exist only as the second terms of compounds: *sarvadhā́-*, *pūrvajā́-*, *vr̥trahán-*, *dakṣiṇāvŕ̥t-* and infin. *āvŕ̥te*, *pariṣád* and infin. *āsádam āsáde*, *gartārúk* and infin. *ārúham* etc. Finally, the scope of this class of word is limited by the systematic use of the *-t-* enlargement after verb roots in *i u* and *r̥* like *jit-*, *vr̥t-*, *bhr̥t-*, *-stut-* (Av. *-bərət-*, *-stūt-*); similarly after other than verb stems: *k* preserves short *r̥* in *ásr̥k* (Lat. *asser*), with *-t-* as a variant, when gutturals are present in *yákr̥t*, Av. *yākarə*; *śákr̥t* (but *ūdhar*, *svár*).

In fact, the greater part of the vocabulary is made up of nouns, where the root is furnished with suffixes, which may moreover be complex or be added to words already possessed of suffixes and p. 108 bear more or less conspicuous special meanings, some for example denoting participles or comparatives and others being mere enlargements.

The radical (root with suffix) of derived nouns is often correlated with the suffixation. Secondary derivations in particular may

be accompanied by *vṛddhi* in the beginning of the word: *sauma-nasám* state of *sumánas-* good will, cf. Av. *haomananhəm; sáptam, sāplám* group of seven *(saptá); pārthavá-, pārth(i)yá-* descendant of Pṛthu, Pṛthi, cf. O. Pers. *mārgava-* inhabitant of Marguš, Margiana. This is an Indo-european and Indo-iranian process, disguised in the Avesta by secondary shortening, but developed very fully in Sanskrit, including that of the learned prose of modern languages.

The list of suffixes is to a large extent the same as that of Iranian as regards form and function.

Active participles; present: *sant-/sat-* being, Av. *hant-/hat-*; *bhárant-* carrying, Av. acc. *barəntəm; dádhat-*, Gk. *titheis;* Past. *vidvāṃs-* (nasal peculiar to Sanskrit)/*vidús-* knowing, Gath. nom. *vīdvå* instr. *vīdušaַ.*

Comparatives: *vás-yas-* better, Av. *vaṅh-yah-; svād-īyáṃs-* (nasal for strong stems is peculiar to India) *svåd-īyas-*, cf. Gr. *hēdíōn.*

Possessive adjectives; one rare: *maghávan-*, Av. *mayavan-*; *ṛtávan-*. Av. *ašavan* pious; the other common: *putrávant-*, Av *puθravant-; mádhumant-*, Av. *maδumant-*; with a somewhat. different value: *tvāvant*, Av. *θwāvant-* like thee, *tvant-tvāvant* as great. This type has been used to form a new participle in Sanskrit: *kṛtavant-* (Av. *vīvarəzdavant-* is the only Iranian example of this formation); *-in-: maṇīsín-* wise, cf. Av. *parənin-* winged.

Formations giving agent nouns, adjectives and action nouns, which are capable of forming infinitives or abstract nouns as, for example: *śrávas-* Av. *sravah-; suśrávas-*, Av. *haosravah-*;

jñāti- relative; *pīti-* drink, functioning as an infinitive *pītáye* to drink, cf. Av. *kərətəe* to do, *dāitim* to give.

jantú- creature, man, Av. *zantu-* clan; *gātú-* road, Av. *gātu* place; this suffix has supplied dative infinitives in *-tave*, accusatives in *-tum.*

aryaman-, Av. *airyamān-* companion; *dhấman-*, Av. *dāma* esta-blishment; inf. *vidmáne*, Av. *staomaine;* inf. *dāváne*, Av. *vīdvanōi.*

Nouns of relationship: *svásar-*, Av. *xvaṅhar-; pitár-*, Av. *pitar-*; agent nouns *dhátar-*, Av. *dātar-*.

p. 109   So much for the living suffixes. For just as a certain number of words, which can be explained by the same formation, cannot from the Sanskrit point of view be analysed: *áśman-* (Av. *asman-*, Gk. *ákmōn*); *uṣás-* (Av. *ušah-*, Gk. *héōs* etc.), so a certain number of suffixes appear only in established words and are non-productive.

This applies particularly to those in -*i*- and -*u*- (apart from-*ti*- and -*tu*-), except the derivatives of verb stems like *jigīṣú*- wishing to conquer, *pṛtanāyú-*, *pṛtanyú-* enemy Examples are: *páti* master, Av. *paiti*-, Gk. *pósis;* inf. -*náme* bend, cf. Av. *nəmōi*, to fly; *pathi*-, Av. *paθi*- (alternant); *sákhye* dat. friend, Av. *haše* alternating with *sakhā*, Av. *haxā;* *purú*- much, Av. *paouru*-, Gk. *polús;* *bāhú*- arm, Av. *bāzu*-, Gr. *pễkhus;* *sūnú*- son, Av. *hunu*-, Goth. *sunus;* complex forms: *ūrmi*- wave, Av. *varəmi*-; *ghṛ́ṇi*- heat, cf. Av. *saēni*- point; *kṣipaṇú*- dart, cf. Av. *pəsanu*- dust.

There are other old complex suffixes: *parṇin*- winged, Av. *parənin*-; *sarvátāt*- (whence *sárvatāti*-) totality, Av. *haurvatāt*-. The majority are restricted to words or groups of words inherited from Indo-iranian and are without vitality: *prātar-itvan*- guest of the morning, cf. Av. *ərəðwan*- making succeed, *ắyuṣ*- beside *ắyu*-, Av. *āyū*, loc. *āyuni*, cf. Gk. *aiés* and *aién;* *manyú*- anger, Av. *mainyu*- mind; *mṛtyú*- death, Av. *mərəθyu*-.

The most wide-spread and earliest of the suffixes is the thematic vowel. The original meaning is still clear in certain cases: *vára*- wish, choice, Av. *vāra*-, -*vara*- opposed to *vṛṇīte* he chooses, Av. *vərənē* I choose; the meaning is sometimes distinguished by the accent, according to the Indo-european rule : *vára*- choice, *vará*- claiming; *śóka*- flash, *śoká*- shining. But the connexion is obscured in *dáśa* ten, *daśamá*- tenth (Av. *dasəma*-, cf. Lat. *decem, decimus*) and there are particularly no traces of derivation in many inherited words such as *áśva*- (Av. *aspa*-) horse, *vṛ́ka*- wolf (Av. *vəhrka*-), *devá*- god (Av. *daēva*-); *hastá*- hand (Av. *zasta*-); pronouns: *eṣá*, *etá*-, Av. *aēša*-, *aēta*-, adjectives: *dīrghá*- long, Av. *darəya; anyá*- other, Av. *anya*- etc.

In point of fact -*a*- is used as much as an enlargement as a suffix, if not more so. For example *páda*- *mắsa*- *bhrājá* appear so far back as the Ṛgveda coexisting with the corresponding athematic forms. Further, as we have already seen, -*a*- is optionally affixed to compounds, especially to possessive compounds (*ṣaḍakṣá*- with six eyes, *urūṇasá*- snub-nosed) and collective nouns (*samudrá*- ocean).

This formation extends further and further to the detriment of athematic formations. The invariableness of the radical and the stability of the accent (except in the cases with an adverbial value: *dakṣiṇá* on the right, from *dákṣiṇa*-) favour it and feminines in -*ā* or -*ī* can easily be formed. We should also note the numerous cases in which thematic -*a*- develops from the zero grade of *an*: *vi-parva*- memberless, *deva-karmá*- performing religious worship;

adhirājá- supreme king. This prepares for the transformation of these stems into thematic stems, cf. TS *alomáka-* without hair. Further from the very beginning the thematic vowel characterised a number of suffixes of Indo-iranian origin and was readily extended to the others.

The following thematic suffixes are ancient and significant: Athematic middle participles in *-āna-*: *dádāna-* (Av. *daθāna-*) giving (without a middle meaning; Benveniste, *BSL*, XXXIV, p. 18), on which those of the thematic verbs in *-māna-*, Av. *-mna-*; *icchámāna-* desiring, Av. *isəmna-* are modelled in Sanskrit.

Verbal adjectives expressing a state in *-tá-* (*śrutá-*, Av. *sruta-*, *bhṛtá-*, Av. *bərəta-*) and *-ná-* (*pūrṇá-* Av. *pərəna-*); expressing possibility or obligation in *-ya-* (*dárś(i)ya-* visible Av. *darəsya-*, *márt(i)ya-* mortal man, Av. *mašya-*) and *-tva-* (*vákt(u)va-* to say, Av. *vaxəδwa-*), *-ta-* (*yajatá-* worthy of sacrifice, Av. *yazata-*): these two last formations have, however, disappeared in India, while the first attracted to itself the forms in *-anīya- -ayya- -eyya-* and alone survived.

Superlatives in *-iṣṭha-* derived from the comparative suffix *-yas* with the suffix of position *-tha-* (*saptátha-* seventh, Av. *haptaθa-*): *vásiṣṭha-* very good, Av. *vahišta-*; superlatives in *-tama-* (*sáttama-* excellent, Av. *hastəma-*) with a suffix expressing position in a multiple group (*ántama-* Lat. intimus, Av. *antəma-*). There are similarly specialised comparatives of adjectives expressing opposed pairs with the suffixes *-aras* (Lat. -erus), *-taras* (Gk. -teros): *ádharas* (Lat. inferus) under, *úttaras* upper. These formations, vigorous in Sanskrit, are already being replaced by the positive in Middle Indian (Pesch. 414, v. p. 186).

Nouns of instrument or object: *śrótrəm* ear, Av. *sraoθrəm*; *mántraḥ* magic formula, Av. *mąθrō*; the formation of *kṛntátra-* chip, on a present stem proves the vitality of the suffix in the ancient period; but it is no more than a survival in the classical language.

Nouns of action and abstract nouns in *-na-*; *yajñáḥ* sacrifice, Av. *yasnas-ča*; *sthánam* residence; O. Pers. *stánam*; *samáraṇam* battle, O. Pers. *hamaranam*. The neuter series, more and more productive, provided an equivalent of the infinitive in Sanskrit and the infinitive itself in some of the modern tongues: *káraṇam* act, Hin. *karṇā* to do. Abstract nouns in *-tva-*: *vasutvá-* excellence, Av. *vanhuθwa-*; and *-tva-na-*: *vasutvaná-* cf. Av. *nāiriθwana-* status of married woman.

Among other suffixes serving principally to denote derivation; *-ya-* is very frequent and varies in use (*satyá-* true, *hiraṇyáya-*

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golden, *svarájya-* autocracy; participles of obligation, see above). The most important of all is *-ka-*, not because it is found in old words (*śúṣka-* dry, Av. *huška-*; *asmákam* our, Av. *ahmākəm*), nor even because of the ease with which it makes adjectives (*ántaka-* finishing, derived from a noun, *ekaká-* alone, derived from *éka-* one), but because very soon it serves as a meaningless enlargement: *sanaká-* old, like *sána-*, *vīraká-* hero, like *vīrá-*, *dūraké* far, like *dūré*, *muhuké* suddenly, like *múhu*, and even *yaké* like *yé* those who, and as a consequence VS *asakáu* like *asáu* (Renou, *Studia indo-iranica*, p. 164) in which its function as a simple enlargement, unable to determine the inflexion, is well marked.

The importance of this enlargement, under the forms *-aka-*, *-ika-*, *-uka-* (in which, moreover, the stems in *-n- -r- -in-* are absorbed) merely increases in Middle Indian and one of the two great categories of modern stems proceeds from it.

It should be remarked that probably there must have been, beside these forms, popular forms with a long vowel, which are attested more clearly in Iranian; **pavāka-* is the required scansion of *pāvaká-* in the RV (it is true that according to Brugmann it was formed after the fem. *pavá* flame, and so differed from the Av. type *mašyāka-* man, but even in this case it seems that the change of rhythm may be explained by the dislike of a form with a popular appearance). Note also the names of animals *maṇḍūka-* frog, *úlūka-* owl, *pŕdāku-* snake, VS *valmĩka-* beside RV *vamraká-*, *vamrí-* (note the popular *l*). Moreover, other Sanskrit suffixes have optionally a long penultimate vowel: *-ūla- -ālu- -āra- -īna-* etc. They must also have been affected by rhythmic influences.

The thematic vowel and this latter group of suffixes are frequently met with in compounds. Besides the tendency to morphological simplification which occurs in compound as in single words (*goghná-* killer of cows, as against *gohán*), they have also the faculty of marking the adjectival character of the whole: *śatá-śārada-* of a hundred autumns, *urū-ṇasá-* snub-nosed, *ví-manyuka-* without anger.

An important category of suffixes is that which serves to make feminines. They derive from Indo-european *-ā*, *-ī* and in the vowel stems at least tend to form pairs with the masculines. As regards the guttural enlargement, it is noteworthy that the usual feminine of *-aka-* is *-ikā*. *Vartakā* quail, as opposed to *vartikā*, stands out as a dialecticism, cf. Pa. *vaṭṭakā* (S. Lévi, *J. As.* 1912, II, p. 512).

ALTERNATIONS

Thematic nouns have, as we have seen, an invariable stem; the athematic nouns, on the contrary, which are still numerous in the early period, admit of complicated variations, either in choice of stem or in vowel grade or, finally, in accentuation.

<div align="center">I</div>

The personal pronouns and certain demonstrative pronouns had regularly since the Indo-european period a special stem for the subjective case of an animate being; *ahám: mām, máma sá, sā: tád, tásya, té*, etc.

An archaic group of substantives, especially neuter substantives, has similarly a nasal stem in the oblique cases which are opposed to or are an addition to the stem of the nom.-acc.-sg.

(i) Direct case in -*r*:

> *áhar: ahnáḥ*, gen. pl. *ahnā́m* (Av. *asnąm*)
> *ásṛk: asnáḥ* (Hitt. *ešhar, ešnaš*)

Similarly *ū́dhar, yákṛt* (cf. Lat. *iecur: iecin-*), *śákṛt*.

The word for "water" which must have belonged to this category has thematised its direct case: *udakám: udnáḥ* (cf. Hitt. *watar, wetenaš*; Umbr. *utur*, abl. *une*).

(ii) Direct case in -*i: ákṣi*, dual *akṣī́* (Av. *aši*), cf. nom. *anák* blind (the -*s*- enlargement is Indo-iranian, cf. Lat. *oc-ulus*, Skt. *ánīkam prátīkam* face, and the series of adjectives *nīcá-* low, etc.): gen. sg. *akṣnáḥ*.

Similarly *ásthi* (cf. Av. *ast-vant-*, Lat. *oss-*), *sákthi, dádhi, hā́rdi* (cf. Gk. *kêr*).

(iii) Enlargement by -*n*- of stems with sibilants: *śíraḥ* (Av. *sarō*): *śīrṣṇáḥ*, pl. *śīrṣā́*, whence the secondary stem *śīrṣá-* (dual *śīrṣé* RV. nom. sg. *śīrṣám* AV.).

Similarly TS *yū́ḥ* (Lat. *ius*), Rv. *yūṣṇáḥ; dóḥ* (cf. *daoša-*), AV dual *doṣā́nī*.

Thematised nominative (cf. *udakám, hṛ́dayam, vánam* opposed to gen. pl. *vanā́m* etc.): *āsyám* (Lat. *os*): RV *āsnáḥ* more frequent than *āsáḥ* (Av. *åṅhō* and *åṅhānō*); while instr. *āsnā́* is found once as against *āsā́* which is quite frequent.

(iv) Enlargement by -*n*- of stems in -*u (dā́ru: drúṇaḥ* beside

dróḥ): this is Indo-european and dominates the inflexions of these nouns in -*u* and -*i*; cf. Gk. *dóru; dórFatos;* but Av. *dāuru: draoš.*

The alternation masc. -*n*-: fem. -*r*- is met with in animate nouns, especially in certain adjectives *(pívān: pívarī* like Gk. *piõn: pieira)* and also the only forms corresponding to the Latin declension of *sedēs: sedis* in *pánthā-, pathi-* (Av. *pantå;* gen. sg. *paθō,.* O. Pers. acc. fem. *paθim,* cf. Meillet, in *Indian Studies.... Lanman,* p. 3).

We perceive in these groups very old remnants (which can be increased in number, if we have recourse to derivation and etymology) partly adapted in new ways.

II

Vowel alternations affect the element (of the root or suffix), which precedes the ending. There is even in the endings of certain stems an alternation complementary to the first; thus for two stems in -*u*-, *guróḥ, div-áḥ.*

Indo-iranian having replaced the Indo-european alternation *e:o* by an alternation of quantity, distinguishes strong and weak cases in the declension. The strong cases are the direct cases (nom. acc.) of the singular and dual; the animate nominative is strong in the plural; the nominative-accusative of the neuter nouns can be strong or weak: *námāni* (Av. *nāmąn*) and *námā* in which from the Indian point of view there still remains a long vowel.

p. 114 Sanskrit shows two more types of alternation in stems with the syllabic consonant:

In the genitive singular there are complementary alternations of the radical and the ending: *vásoḥ* (Gath. *vaṅhāuš*), but *paśv-áḥ* (Av. *pasvō*);

In the locative singular a short vowel precedes *r* and *n: netári, áhan* and *áhan-i;* stems in -*i*- and -*u*- have a long vowel and zero ending: *vasáu* (Av. *vaṅhāu*), *girá* (Av. *gara*).

Indo-iranian has *ā: a:* zero in several cases, in which Indo-european had the alternation *o: e:* zero. This made it possible to set up triple alternations in animate stems with a syllabic consonant:

vr̥trahā (*-jhān)	Av. *vərəθrajå (*-jhās)*
vr̥trahánam	*vərəθrajanəm*
vr̥traghnáḥ	*vərəθraγnō*

The triple alternation dates from Indo-european in *pitá* (Av.*pita*, Gk. *pater*), acc. *pitáram* (Av. *pitarəm,* Gk. *patéra*), dat. *pitré* (Av.

fəðrōi, piθrē, Gk. *patrí*); *ukṣā́, ukṣáṇam* (Av. *uxšanəm*) and *ukṣā́ṇam,*
ukṣṇáḥ (Av. *uxšnō*); but as against *vṛ́ṣā, vṛ́ṣṇaḥ, vṛ́ṣaṇam,* Avestan
has *arša, aršnō* and the accusative with the long vowel *aršānəm.*

Occasionally the third grade appears only in the vocative:
sákhā (Av. *haxa*), *sákhāyam* (Av. *-haxāim*); voc. *sakhe:* instr.
sákh(i)yā (Av. *haša*); *púmān* voc. *pumaḥ* Class. *puman,* gen.
puṃsáḥ, acc. *púmāṃsam; cikitván, cikitvaḥ, cikitúṣaḥ.*

In the case of the nasal, the zero grade induces a vowel or a
consonant according as the ending begins with a consonant or
vowel; hence a triple alternation again in: *śvā́* (Av. *spā*), acc.
śvā́nam (Av. *spānəm*), gen. *śún-aḥ* (Av. *sūnō*), instr. pl. *śvá-bhiḥ.*

Finally with alternation of the suffix: *pánthāḥ* (Av. *pantå*),
patháḥ (Av. *paθō*), *pathibhiḥ* (cf. O. Pers. acc. fem. sg. *paθim*).

Generally the tendency is towards a double alternation; one
may have: Long grade: zero; e.g. *-dhāḥ: -dh-e, -pā-ḥ: -p-e* (Gath.
infin. *pōi*); *tā́raḥ* (Av. *stārō*); *stṛ́bhiḥ* (cf. Av. *stərəbyō*); *dvā́raḥ:*
duráḥ (here Iranian has Av. *dvarəm,* which is ancient, cf. Lat.
forēs); *nápātam* (Av. *napātəm*): *nádbhyaḥ; hárdi: hṛdáḥ* (cf. Av.
zərədā).

p. 115   Long grade: *a* grade.   This occurs in stems with a diphthong
like *gáuḥ, gā́m* (AV. *gāuš, gąm*), *gávām, góbhiḥ* (Av. *gavąm,*
gaobiš); and in nouns in which the zero grade would be impossible;
ā́paḥ, acc. *apáḥ,* gen. *apā́m* (Av. *āpō, apō, apąm*); *áṅgirāḥ:* gen. pl.
*áṅgirasām; dual *nā́sā* (cf. O. Pers. acc. sg. *nāham*): *nasóḥ.*

A grade: zero.   Found in participles not reduplicated: *bhávan-*
tam: bhávataḥ (but there is a nom. neut. pl. RV. *sánti*) and similarly
bṛhántam: bṛhátaḥ (Av. *bərəzantəm, bərəzatō*); *tráyaḥ: tribyáḥ*
(Av. *θrāyō, θribyō*); acc. *náram* dat. *náre: nṛ́bhiḥ* (Av. *narəm,*
narōi, nərəbyaš-ca).   Under the influence of the present of the
verb, a nasal is introduced into the stem *yuj-:* the result is an
alternation comparable rhythmically to that of *a: an.*   So while
RV has instr. *yujā́,* gen. *yujáḥ,* nom. pl. *yújaḥ,* there are the strong
forms: nom. dual *yúñjā* beside *yújā,* acc. sg. *yúñjam* once beside
yújam fifteen times; VS nom. *yuṅ* (for **yuṅkṣ*).   This process is
not unknown elsewhere.   Beside Lat. *coniu(n)x,* we have Avestan
gen. *ahūmərəṇčō* from nom. *ahumərəxš* he who destroys life, cf.
mərəṇčaite.

In a general way alternations appear in the same morphological
categories in Vedic and Avestan.   There are even isolated remains
which complete or correspond to one another.   For example,
opposed to the dat. pl. *nádbhyaḥ* from *nápāt,* Avestan has gen. sg.

naptō, loc. pl. *nafšu;* Vedic has nom. sg. *véḥ*, Avestan *yaoš.* But the parallelism is not complete; thus the assignment of the *-i* morpheme to the direct sg. case of the neuters is an Indian novelty. Alternations are often destroyed, as in the acc. sg. and nom. pl. In the acc. pl. we find *ā́paḥ* and the two stems *uṣas-*, *uṣā́s-* indifferently. *Vā́k* regularly preserves its long vowel through each inflexion, while the Gāthās have nom. sg. *vāxš*, gen. *vačō; sā́nu-* is extended to the weak cases by the side of *snu-;* we have instr. *kṣamā́* beside *jmā́;* gen. *náraḥ* is opposed to Av. *nərəš;* gen. *sū́raḥ* from *svár-* is like Av. *hūrō*, remodelled after the general type of the flexion, while Avestan alone preserves the alternation *r: n* in Gen. sg. *xvə̄ng.* There is, therefore, something else in the Vedic complexities beside the mere continuance of former conditions.

III

In a large number of Vedic nouns, the tone remains in the same place throughout each inflexion *(gáuḥ, gā́m, gávām);* elsewhere it moves from the radical to the ending: *ā́paḥ, apā́m; pádam, padáḥ;* masc. *'mahā́ḥ*, neut. *máhi*, gen. *maháḥ; paśúḥ, paśváḥ.*

p. 116 The principle of balance of accent goes back to Indo-european, although there was not always continuity of detail. Kuryłowicz has succeeded in discovering cases of agreement with Avestan, where the accent left traces in the *limbre* of the vowel:

> gen. *vásoḥ*, Av. *vaṅhə̄uš;* but *mṛtyóḥ*, Av. *mərəθyaoš;*
> dat. *vásave*, Av. *vaṅhavē;* but *mahé*, Av. *mazōi.*

But here even when verification is possible, agreement between Indian and Iranian is not always complete. Moreover doublets like *páśu-* and *paśú-, máti-* and *matí-* are sufficient to show that Vedic has lost certain prehistoric alternations.

From all points of view, therefore, Vedic presents a stage, which is archaic in appearance and preserves real archaisms. But the old system is not entirely reproduced in it and novelties are apparent. Only the later history makes it clear whether these remodellings are signs of vitality or decay.

INFLEXION

The forms and distribution of Sanskrit and Iranian endings are in the beginning almost identical (for use of forms see p. 150).

SINGULAR

INANIMATE NOM. ACC.: In the thematic nouns, the ending is -*m*: *kṣatrám* (Av. *xšaθrəm*). In the athematic nouns, the ending is zero: *mádhu* (*maδu*), *svàr* (*hvarə*), *mánaḥ* (*manō*), *mahat* (*mazaṯ*). There is absolute agreement.

ANIMATE NOMINATIVE: Where the alternation is sufficient to distinguish the nominative from the accusative, the ending is zero, according to the Indo-european rule: *pitá̄* (*pita*), *śvá̄* (*spā*), *sákhā* (*haxa*), and by analogy *hastí* (there is no corresponding Iranian form). Everywhere else, the ending is -*s*: *vṛkaḥ* (*vəhrkō*), *giríḥ* (*gairiš*), *krátuḥ* (*xratuš*), *pánthāḥ* (*pantá̊*); similarly in the monosyllables *gáuḥ* (*gāuš*), *kṣá̄ḥ* (*zå*), *rá̄ḥ*, *gíḥ*, *bhrú̄ḥ*, *dhí̄ḥ*, *véḥ*. In the derivatives with the *-*yā̆* *-*wā* suffixes in their zero form, there is still *śvaśrú̄ḥ* (Lat. *socrūs*; but Av. *tanuš* opposed to acc. *tanūm*), and both types in *naptí̄ḥ* and *deví*. Even the Gāthās of the Avesta have *bərəzaitī* (Skt. *bṛhatí̄*) and *dāθriš* (cf. Skt. *jánitrī*); O. Pers. has *harauvatiš* opposed to Av. *vāstravaitī*.

p. 117 The loss of elements other than the first in final consonant groups is the reason why Sanskrit has from the beginning many fewer cases of final -*s* than early Iranian. The nominative of consonant+sibilant stems has therefore no characteristic ending: *vá̄k* (Av. *vāxš*, Lat. *vox*); *spáṭ* (Av. *spaš*, Lat. -*spex*), *viṭ* (Av. *víš*), (*ṛta*)*yúk* (Lat. (*con*)*iux*), *pá̄t* (Lat. *pes*), *ápāṅ* (Av. *apąš*) for *apāṅkṣ*; present participles like *sán* (*sánn* before a vowel; in the Vedas the -*s* is used before a word with initial *l*-; Av. *has*); perfect participles like *vidvá̄n* (Av. *vidvå*, Gk. *eidós*); adjectives in -*vant*- as *tvá̄vān* (Av. *θwāvąs*, cf. Gk. -*ϝeis*); comparatives like *vásyān* (cf. Av. *spanyå̊*) are purely Indian remoulded forms.

ANIMATE ACCUSATIVE: -*m* for vowel stems: *áśvam* (Av. *aspəm*), *krátum* (Av. *xratūm*), *kṣá̄m* (Av. *ząm*), *gá̄m* (Av. *gąm*); -*am* as in Iranian (cf. Gk. *póda*) in the others: *pá̄dam* (Av. *pāδam*), *śvá̄nam* (Av. *spánəm*).

VOCATIVE: From the Indo-european period this is characterised by the absence of inflexion (abnormally, the final vowel is lengthened), and, when there is an accent, by the accent on the first

syllable (cf. Gk. *ádelphe: adelphós, páter: patér*) *asura* (Av. *ahurā*), *pitar* (cf. Av. *dātarǝ*), *mányo* (Av. *mainyō*), *viśvamanaḥ* (cf. Av. *humanō*).   The *-s* reappears in the perfect participles, adjectives in *-vant-* and comparatives: *cikitvaḥ, ojīyaḥ*.   The feminines in *-ā* agree exactly with Iranian; *aśve, subhage*, cf. Av. *daēne*, and analogy gives *devi, yami*, AV. *vadhu* (cf. Av. *vaṅuhi*).

INSTRUMENTAL: Vedic, on the whole, reproduces the Indo-iranian stage the ending being *-ā*.   Consonant stems: *vācá* (Av. *vača*), *padá* (Av. *pāδa*), *mánasā* (Av. *manaṅha*), *jmá, kṣamá (zǝmā)*, *vṛtraghná (vǝrǝθrayna)*.

Thematic stems: *yajñắ*, cf. Av. *zastǎ*, but this form is rare, particularly in the masculine; stems in *-ā: svadhá, jihvá* (cf. Gath. *daēnā*); besides which Indo-iranian is already using the type *jihváyā* (cf. Av. *daēnaya*); stems in *-i* and *-u: sákhyā* (Av. *haša*), *krátvā* (Av. *xraθwā*); Indo-iranian already had the type *cittī* (Av. *čišti*), but the word corresponding to *xratu* is missing in the regular Indian declension.

In vowel stems Sanskrit has new creations, all attested by the Vedas and soon to replace the earlier forms in the classical period.   The lengthening of the final vowel gave rise to much ambiguity, such as confusion with the dual, the neuter plural and even the nominative singular.   Moreover, Sanskrit has
p. 118   tended to give body to the endings of vowel stems, because of the relative weakness of final sounds or for other reasons.

Its new instrumentals were formed by means of *-n-* and from the time of the Ṛgveda *-ena* is much commoner than *-ā* in the thematic stems.   It is the only ending in the Brāhmaṇas.   Only the endings *-yā* and *-vā* are by the feminines of the *-i* and *-u* class and so take a place beside *-ayā*.   Both endings are permissible for the masculine and neuter, but the one containing the nasal is preferred.

DATIVE: The characteristic ending in Indo-iranian is **-ai;* so we find in the consonantal nouns *bṛhaté* (Av. *bǝrǝzaite*), *pitré* (Av. *piθre*) *vásave* (Av. *vaṅhave*).   In the thematic stems Sanskrit has the contracted diphthong of Av. *ahurāi* only in the pronouns *(asmái*, Av. *ahmāi);* the normal form is *ásurāya*, which is not definitely an Indian innovation, cf. Gath. *ahurāi ā* and even in one word *yátāyā* to the goal, but its generalisation is peculiar to Sanskrit.

In the feminine, Skt. *devyái* and Av. *vaṅhuyāi* agree; also Skt. *sūryáyai* and Av. *daēnayāi*, where the difference in quantity of the medial *a* is merely graphic or results from a subsequent readjustment.   At all events Sanskrit agrees with Iranian in employing the element *-āy-* in all the indirect cases of the singular except the instrumental.

GENITIVE: In the consonant stems, both in Vedic and Iranian we find *-as on the one hand: *apáḥ* (Av. *apō*), *vācáḥ* (*vačō*), *krátvaḥ* (*xraθwō*); and on the other hand *-s after a gunated vowel: *giréḥ* (*garōiš*) *dyóḥ* (*dyaoš*) (*pátir*) *dán* (cf. Av. *dōng paitiš*). The root is in the zero grade in nouns in -ar; *pitúḥ* (cf. Av. *nərəš*, but Skt. *nárah* has been re-formed). The same ending occurs in nouns with a final long vowel: *bṛhatyáḥ* Av. *bərəzaityå*; *jihváyāḥ*, cf. Av. *daēnayå*. The correspondences are not carried out in every detail. So *paśváḥ* answers to Av. *pasə̄uš*. In thematic stems: *ásurasya* (Av. *ahurahyā*).

ABLATIVE: Indistinguishable from genitive except in thematic stems. Sanskrit has here been more conservative than Avestan, which in its later stage has extended the final dental to other stems.

LOCATIVE: In consonant stems the ending is -*i*: *mánasi* (*manahi*), *nári* (*nairi*), *viśí* (*vīsi*, *vīsya*), *tanví* (*tanvi*). This -*i* combined with thematic -*a*-, gives -*e*: *dūré* (*duirĕ*; *dūraēča*), *háste* (*zastay-a*).

This -*i* was originally a suffixed particle and the uninflected locative still exists extensively in Indo-iranian. The latter is found with the former in *n* stems: *áhan* (cf. Av. *ayąn*), *ájman* (cf. *barəsman*); in *ī* and *ū* stems: *nadí*, *tanú* (one example; Av. *tanvi* only =RV *tanvì* 7 exx.); in isolated adverbs like *parut* (cf. Gk. *pérusi*) and with yet another vowel grade in the *i* and *u* stems.

In *u* stems, although one would expect -*o* as in Av. *pərətō* at the entrance, *gāθav-a*, Sanskrit has only -*au*, Indo-ir. -*āu* (except perhaps for the solitary *sắno* preserved in a formula): *vásau* like Gath. *varihāu*, beside which occurs Av. *vaṅuhi*, while, conversely, Sanskrit has *dásyavi* opposed to Av. *dainhō*, *dainhava*.

In *i* stems the expected *-āi is missing. There is only the phonetic doublet -*ā*; *agnắ*, *srutắ*, cf. Av. *gára*, *aibī-dərəštā*. This -*ā* is supposed to have been also a doublet of *āu in *u*- stems, which gave rise to Skt. -*au* (-*āv* before a vowel) in *agnáu*, *giráu*, *iṣṭáu*; cf. also Av. *garō* in Iranian.

In feminines with long vowels Indian has also an ending -*ām*: *sárasvat(i)yām* (O. Pers. *harahuvatiyā*, *śvaśru(v)ắm*, *usrắm*, *grīvắyām* (Av. *grīvaya*). Only the vowel is Indo-iranian; a nasal is affixed in Sanskrit as in the dual -*bhyām* opposed to Av. -*byắ*.

DUAL

NOM. ACC.: Indian is in complete agreement with Iranian.

For inanimate nouns the ending is -*ī*: *akṣí* (*aši*); *śaté* (*saite*); so for the feminines in -*ā* (formerly collective nouns) *yamé*, cf. Av.

urvaire; ubhé (Gath. *ubē*).   Animate nouns with a short vowel
lengthen it: *putrá (puθra)*, *bāhū́* (cf. *mainyū*; but also *bāhávā*,
Av. *bāzava*), *pátī* (cf. Av. *gairi*); so for stems in *-ī* like *devī́* (cf.
Av. *azī*).   Animate consonantal nouns and those in *-ū* have *-ā*
and *-au* as endings, according to what follows in the sentence;
ā is dominant: *nā́sā (nå̄nha)*, *nárā (nara)*, *śvā́nā (spāna)*, *pā́dā*
and *pā́dau (paδa* and *paδō)*, *pitárā* and *pitárau (pitarǝ)*, *bṛhántā*
(bǝrǝzanta).   In the same way thematic nouns have *-au* beside
-ā: *hástau* and *hástā (zastō* and *zasta*, although the former does not
correspond to *hástau)*.

INSTR. DAT. ABL.: The normal Iranian ending is O. Pers. *-biyā*,
Av. *-byǎ*, in place of which Sanskrit has *-bhyām; pitṛbhyā́m* (cf.
Av. *nǝrǝbya)*.   The nasal is twice attested in the Avesta in the
same word *(brvaṭbyąm)*.   It is doubtless of Indo-european origin;
so that in the process of separation from Iranian, Sanskrit has
simply developed an Indo-iranian ending.   Thematic nouns have
p. 120 a long vowel preceding this ending.   Iranian has ordinarily a
diphthong: *hástābhyām*, Av. *zastaēibya*, O. Pers. *dastaibiyā*.
Iranian has the type *dōiθrābya* only in the neuter.   Here it is a
question of independent systematisation.

GEN. LOC.: The Sanskrit ending *-oḥ* seems to combine the endings
of the Indo-ir. loc. *-au*, Av. *-ō* and of the gen. *-ās*, Av. *-å̄s*, *-å̄*
(Benveniste, *BSL*, XXXIV, p. 25).

<h2 style="text-align:center">PLURAL</h2>

NOM. ACC. INANIMATE: Vedic and Iranian here diverge.   Avestan
has only a few instances of the ending *-i* (Gath. *sāxvǝnī*, cf. *saxvārǝ*),
which is normal in Sanskrit: *catvā́ri*, *mánāṃsi* (Gath. *manå̄*).
Conversely, the zero ending common in Avestan, has left only
rare and doubtful traces in India.   The two languages agree only
in the vowel stems, in the sense that Vedic preserves a certain
number of long vowel endings, like Iranian: *kṣatrā́ (xšaθra)*,
trī́ (θrī), *purū́ (pourū)*, similarly in the nasal stems: *nā́mā(nąma)*.

But an innovation found in these nasal stems discloses a very
important principle.   At the outset Indian had *nā́mā*, *nā́ma* and
nā́māni like Iranian *(nąma*, *nāmą̄n* and perhaps *nāmǝ̄ni)*.   These
forms have resulted in the types *kṣatrā́* and *kṣatrā́ṇi*, the latter
of which is almost as common as the former by the time of the
Ṛgveda and is often associated with it by a deliberate trick of
style.   The AV proclaims the triumph of the new form and the
type is extended to *trī́ṇi* and *purū́ṇi*.

Further, Sanskrit has from the first extended the medial nasal

of the *śắnti, ghṛtávānti* type to the stems in -*s: mánāṃsi* (cf. Gath. *manȧ*), *havĭ̃ṃsi*. The result is that the nasal consonant or infix subsequently served as a characteristic of the direct case of the neut. pl. while the long grade of the penultimate syllable, the inherited form, drops out of use: hence AV *bṛhánti;* Br. -*vṛnti;* -*añci,* -*yuñji*.

ANIMATE NOM.: Here Vedic is very conservative: -*aḥ* after consonant stems and stems in the **e* grade: *ắpaḥ (āpō), giráyaḥ (garayō), dhĭvantaḥ,* cf. Av. *drəgvantō;* -*āḥ* in thematics and feminines in -*ā: áśvāḥ (aspa), sénāḥ (haēna,* cf. *urvarȧ);* and similarly *bṛhatĭḥ (bərəzaitĭš);* masculines in -*a-* have, in addition, an archaic enlargement: *áśvāsaḥ (aspānhō),* which Vedic has extended to certain feminine adjectives: *durmitrắsaḥ.*

ANIMATE ACC.: Athematic stems: -*aḥ* =Av. -*ō,* as a rule after
weak stems: *apáḥ (ắpō), dhĭvataḥ* (cf. *drəgvatō); śŭnaḥ* (but *spānō).* The vowel stems perhaps go back to a single Indo-iranian form, but diverge to some extent: *márt(i)yān* (Gath. *mašyə̄ng;* Av. *mašyąs-ča,* Skt. -*āṃś ca); sénāḥ* (cf. *urvarȧ)* and similarly *vásvīḥ (vaṅuhĭš);* but *girín, krátūn* against *gairĭš, xratūš.*

INSTRUMENTAL: Skt. -*bhiḥ* =Av. -*biš.* In thematic stems, -*ebhiḥ* and -*aiḥ* compete with one another: *márt(i)yaiḥ, márt(i)- yebhiḥ,* Av. *mašyāiš,* O. Pers. *martiyaibiš* (this is the only ending in Persian; it is almost entirely absent in Avestan).

ABLATIVE: Skt. -*bhyaḥ* =Av. -*byō.*

GENITIVE: Here again Vedic reproduces the Indo-iranian stage. Consonant stems: -*ām* =Av. -*ąm,* which is often dissyllabic: *apắm (apąm), bṛhatắm (bərəzatąm).* Vowel stems: -*nām* =O. Pers. -*nām,* Av. -*nąm: mártyānām (mašyānąm,* cf. O.Pers. *bagānām), urvárāṇām* (cf. *zaoθranąm), girīṇắm (gairinąm), purūṇắm (pouru- nąm,* O. Pers. *parūnām),* and *gónām* (in Indian only) beside *gắvām (gavąm).* These alternative forms occur especially in *r* stems: *nṛṇắm* beside *narắm (narąm), pitṝṇắm* (cf. *dugədrąm).* In the thematic stems some examples of -*ām* are preserved by the Vedas and the Avesta *(devắm* in a formula; *varəšąm* etc.).

LOCATIVE: This is similar in the two languages: Skt. -*su (-ṣu)* = Av. O. Pers. -*su, -šu, -hu* (to which the postposition -*a,* which has already been met with in other forms, is frequently added).

GENERAL REMARKS

The earliest scheme of Sanskrit declension is, therefore, on the whole archaic and close to Indo-iranian. There is even found in it an adverbial case, which falls outside the declension and has disappeared everywhere, except in Indo-iranian and Italo-celtic: TS *mithuni-kṛ-* to unite, *vaśi-kṛ-* to dominate, *grāmi-bhū-* to belong to the village, cf. Av. *vaxšȧθi-buye* to wax great, Lat. *lucrī-facere* to gain. But at the same time it exhibits innovations, which are not all simple readjustments and sharply separate Sanskrit from Iranian. Such are the generalisation of the dat. sg. m. and n. in *āya*, the locatives in *-au*, the duals in *-au*, the oblique endings of the dual, the part played by final *-m* and above all the use of *-n-* in the different forms of the instr. sg. and the nom. acc. pl.

There is no doubt that the oldest forms of the Vedas do not
p. 122 exactly reproduce those of the contemporary stage of the language. Besides the archaisms taken for granted in a text of this nature, there occur variants performing one and the same function. Now according to a procedure perpetuated in Middle Indian, many old forms are employed for literary effect in company with recent forms; hence *viśvā jātāni, viśvā vásūni, viśvā dvéṣāṃsi* and conversely *viśvāni durgá́*; similarly *trí pūrṇá́... padā́ni* opposed to *trī́ṇi padā́; purū́ vásūni* and *purū́ṇi vásu*. The ambiguous archaic form is explained by the other. So anomalies like *ū́dhar divyā́ni* I. 64.5, *vratā́... dīrghaśrút* VIII 25.17. are possible. This procedure has its conveniences for metre; compare the nom. pls.:

   bṛhád vadema vidáthe suvī́rāḥ II. 1.16
and   *suvī́rāso vidátham ā́ vadema* II. 12.15
or the instr. pls.

   yātám áśvebhir Aśvinā VIII. 5.7
and   *ādityaír yātam Aśvinā* VIII. 35.13
or again   *áṅgirobhir ā́ gahi yajñíyebhir* RV X. 14.5
and *áṅgirobhir yajñíyair ā́ gahīhá* AV. XVIII. 1.59.

The archaic forms are, as a matter of fact, usually not the most numerous; *a fortiori*, the Atharvaveda, which is basically archaic but employed for a different social purpose than the Ṛgveda, has a marked orientation towards the language of the classical stage. It would, therefore, be wrong to appraise the linguistic stage of the Ṛgveda by a table of forms. A comparative check

of these and an enquiry into their literary use will show that they are largely survivals.

Moreover, the Ṛgveda itself provides evidence for a number of special formations; thus the gen. pl. *gónām* beside *gávām*, the abl. sg. *cákṣoḥ* beside *cákṣuṣaḥ;* or again the instr. sgs. of the *mahinā́, bhūnā́* type.   It is a curious thing that Classical Sanskrit, which tends to reduce anomalies, should have decided more than once in favour of the traditional forms.   For instance, *gavām*, which is in appearance more regular than *gonām*, is retained, although Middle Indian (Pa. *gonaṃ, gunnaṃ*) is a witness of the vitality of the rejected form.   The fact that only *-aiḥ* is kept in the thematic instr. pl., when all analogy would seem to assure the triumph of *-ebhiḥ* (confirmed by Middle Indian), perhaps indicates that the latter was a recent and specifically Indian innovation, parallel, but not to be identified with the Old Persian usage.

Indeed, Classical Sanskrit is characterized by impoverishment of grammar, contrasting with the abundance and constant renewal of its vocabulary.   Though a language of culture, it has had to follow willy-nilly the evolution of the vulgar tongues.   Now the latter, like those of other Indo-european languages, have tended to normalise and simplify the copious prehistoric inflexions.

This is the reason why Sanskrit, as we have seen, eliminates the ambiguous endings in *-ā* in favour of *-ena, -au, -āni* and rejects the type *aryáḥ, krátvaḥ* in the *i* and *u* stems; why the uninflected locative of stems in *-an* disappears except as an intentional archaism, while the stem assumes for preference the vocalism of the other oblique cases *(mūrdhni rājñi nāmni)*; and why the vocative in *-vaḥ* of adjectives in *-vant-* has been replaced by *-van* since the time of the Atharvaveda.   Neuters in *-i* and *-u* occur only with the *-n* stem preceding endings beginning with a vowel and the nasal of *-anti, -āṃsi* is extended to *-uñji* etc.   In participles the vowel quantity is assimilated to the masculine: *santi* like *santaḥ*.   But it is not just isolated forms, which are modified; large groups are formed or brought closer to each other.   Root stems in vowels are assimilated to derived stems and as early as the Ṛgveda the masculine *gopā́ḥ* and *gopá-* (acc. pl. *gopān*) exist side by side and the fem. *prajā́* ranks with m. f. *divijā́ḥ*, of which the later forms alone occur in classical Sanskrit.   The paradigms of *vṛkī́ḥ* and *devī́* are merged into a single paradigm in which the parallelism with the declension of feminines in *-ā* is stressed.

On the other hand nouns whose roots end in a long vowel tend to join those in which this vowel is short, a process aided by morpho-

logical factors. For instance, final long vowels are shortened in compounds, as in *senajít-* and *pṛthiviṣṭhá́-* on the one hand and in *gopá́-* on the other. The weakness of final vowels, which is a marked feature of literary Middle Indian, has, no doubt, also contributed to this process.

The reduction of alternative forms continued; hence the accusatives such as *rājānaḥ*, the nom. pl. of the pres. part. in *-ataḥ* and also a genuine hesitation between the feminines of participles in *-antī* and *-atī*, in spite of the edicts of the grammarians.

p. 124   The general result is more systematization and greater clearness. Thematic and athematic stems are more clearly opposed than before: instr. sg. *-ena: -ā́; gen. pl. -ānām: -ām; instr. pl. -aiḥ: -bhiḥ.* The generalisation of the *devī́* type and even the interchange of the *-i-, -u-* with the *-ī-, -ū-* inflexions arise from a tendency to establish a single feminine stem, capable of being grouped with the type *jihvá́,* which also absorbs *candramā́* (an old *-s* stem) and even *duhitā́* (an *-r-* stem). The masc. neut. group is contracted like the feminine group; RV *-ánti (sánti, ghṛtávánti)* becomes *-anti* where there is a masc. *-antaḥ* (Padapāṭha *sánti,* AV *bṛhánti;* but *mahā́nti: mahā́ntaḥ* persists); at the same time it becomes more and more sharply opposed to the feminine group, as the use of the thematic formation becomes extended.

Now this formation gains ground from the first. One point of departure of this extension may be found in ambiguous inflexions: *pá́dam pá́dau,* for example, may be grouped equally well with *pá́d* or *pá́da-* and *padā́* with *pád-* or *padá́-.* Another is to be found in derived stems like *-dṛ́śa-, -dúgha-,* which are doublets of the athematic *-dṛ́ś-, -duh-.* And finally there are the Indo-european groups, such as *dá́ma-* and *dá́m-.*

The first use, which the Vedic language made of the thematic formations, was, no doubt, the elimination of monosyllables in the direct cases; *vā́ri* replacing *vā́ḥ* water and *pú́mān* serving as nominative to *puṃs-* are special solutions of the same problem. Yet we already find in Indo-iranian the neuter *hṛ́dayam,* Av. *zarəδaēm* and in Vedic *udakám* (the stem of which was extended to the other cases), *āsyàm* and the feminines *pṛ́tanā* (and consequently *pṛ́tanāsu* opposed to *pṛtsú*), *nā́sikā,* nom. dual *nā́se,* the masc. *pá́daḥ* a quarter, if it can be considered to be derived from *pá́d-* foot (of a quadruped; this method of division is still current in India) and *má́sa* the equivalent of *mā́s-,* which means "month" as well as "moon". There are also *dá́nta-* doublet of *dán,* instr. pl. *dadbhíḥ* and finally *nára-* (first attested in compounds) furnishes loc. *nári* etc. with a nom. sg.

The enlargement extends later to the whole paradigm: RV *udakắt*, *āsyéna* beside *āsắ*, and a solitary loc. *āsyé;* AV *mắsāya*, *mắsānām*. Then new words appear: Br. *dváram*, Up. *naktam*. Further, the thematisation is by no means reserved for monosyllables.

In the polysyllables, nasal alternation is responsible for *darmá-* beside *darmán-*; from *áhā(ni)* comes the gen. pl. *áhānām* beside *áhnām*; the dual *śīrṣé* and later AV *śīrṣám* come from *śīrṣắ(ni)*, abl. sg. *śīrṣatáḥ*. We still find TS nom. *yắḥ* juice, but *yūṣéṇa* in the instrumental (VS *yắṣṇā*). The coexistence of stems in *-as-* and *-a-* like *jánas-* and *jána-* race, leads to *án-āga-* beside *án-āgas-* without sin, etc. But enlargements are multiplied without any particular reason: *devara-* is soon separated from the nouns of relationship in *-tar-*; RV *viṣṭápa-* neut., which supplies the direct case for the fem. *viṣṭáp-* is extended to the oblique cases (SV *viṣṭápe* =RV *viṣṭápi*) and afterwards AV *kákuda-*, Ep. *āmiṣa-*, *suhṛda-*, the comparatives *śreyasa-* etc. appear.

Similarly *-ā* is used to characterize feminines: RV *kṣapábhiḥ* nights, AV *apsará*, *kāse* voc. cough, beside the abl. *kāsáḥ*, RV *uṣám* and VS *uṣắ*, YV *diśā*, Pāṇ. *niśā*. The masculine stems in *-ā* are, on the contrary, eliminated. *Patheṣṭhā-* is produced by analogy with *ratheṣṭhā-*, RV *vipathi-* is succeeded by AV *vipathá-* and *patha-* appears later. The acc. *mahám* is still found beside *mahántam*, but only *mahān* and *maháḥ* (fem. *mahī*) remain in the nom. sg. The thematic vowel is established in compounds: *ratnadhébhiḥ*, *ratheṣṭhéna*, acc. *gopám* beside *gopám* and thus a paradigm is formed in opposition to *prajắ* etc.

Innovations in Sanskrit tend, therefore, to a regrouping within the system, the archaism and fragility of which became more and more perceptible as the evolution of the spoken language progressed. And indeed these partial reforms conceal a more thorough change brought about primarily by Middle Indian.

PRONOUNS

There are two kinds of pronouns: personal pronouns, which have inflexions of their own and pronouns, which may be called adjectives. These latter are capable of gender and possess inflexions having points in common with the declensions of nouns. Sanskrit makes important innovations in both kinds.

Personal pronouns

Singular

Direct cases. Nom. *ahám* (Av. *azəm*, O. Pers. *adam*); *t(u)vám* (Gath. *tvə̄m*, O. Pers. *tuvam;* Gath. *tū* heading the sentence is
p. 126 missing in Sanskrit). Acc. *mā́m* (Av. *mąm*, O. Pers. *mām*), enclitic *mā* (Av. *mā*); *t(u)vā́m* (Av. *θwąm*, O. Pers. *θuwām*, monosyllables), enclitic *tvā* (Av. *θwā*).

Instr. *T(u)vā́* (Av. *θwā*) is exceptional in the Ṛgveda and gives way to the Indian formation *t(u)vā́yā*. In the first person *máyā* only is encountered.

Dat. From the beginning we find *máhyam*, *túbhyam* with the nasal peculiar to India. Of the previous forms RV *túbhya* is read in certain contexts and the metre is often responsible for the restoration of *máhya*. The former is an Indian adaptation of the root, cf. Gath. *taibyā*, but the latter is more archaic than Av. *maibyā*, cf. Lat. *mihī* opposed to *tibī*.

Abl. Besides the inherited forms *mát*, *tvát* (Av. *mat̰*, *θwat̰*) which are too short and resemble the forms used in compounds, RV *mámat* (after the gen. *máma*) and AV *mattā́ḥ* were created, the latter prevailing from the Epic period.

Gen. *Táva* (Av. *tava*) is Indo-iranian: *máma* is peculiar to Indian (Av. *mana*, O. Pers. *manā*) and is probably the result of an assimilation in Sanskrit. The enclitic forms *me*, *te* (Gath. *mōi*, *tōi*, O. Pers. *maiy*, *taiy*) are in use for the genitive and dative, as in Greek. Some instances of the accusative *me* are found in the Vedas and later in Middle Indian, in pursuance of a tendency, which appeared similarly in the later Avesta and in late Lithuanian.

Loc. There is no special form in Iranian. RV has *máyi*, but *t(u)vé* quickly disappeared in favour of AV *tváyi*.

Dual

The paradigm is established in Sanskrit itself. In the nominative Indo-european must have had *wē:* RV once only *vā* encl., Av. once only the acc. *vā* and with the nasal RV once only the nom. *vām* and the acc. dat. gen. encl. *vām;* and also *yū*, cf. Lith. *jù-du* you two, recognisable in *yuvám*, acc. *yuvám*, gen. RV *yuvākú-* (taken from *yuv-au* according to Renou, *Studia indo-iranica*, p. 165), cf. Av. *yavākəm*. The Gath. acc. *āǰāvā* explains the Brāhmaṇa type, nom. acc. *āvám*. The paradigms are constructed with difficulty from *āv-* and *yuv-*; *āvábhyām*,

yuvábhyām and *yuvắbhyām* which prevails; *yuvóḥ* which is soon replaced by the TS *yuváyoḥ* (cf. RV *enoḥ*, AV *enayoḥ*), *āváyoḥ*; abl. *yuvát*, TS *āvát*.

Enclitics: *nau* has assumed the favourite dual ending of Indian (Gath. *nā* gen. and Gk. *nố* nom. acc.); *vā* (Gath. *vā* found once) is found once in RV, probably in a genitive sense; the usual form is *vām*.

Plural

The genitive is Indo-iranian: *asmắkam yuṣmắkam*, Av. *ahmắkəm yūšmākəm;* and similarly the enclitics *naḥ vaḥ*, Av. *nō vō;* the ablative *(asmất, yuṣmất*, Av. *ahmaṯ, yūšmaṯ)* is also Indo-iranian, together with the dative *(asmábhyam*, Av. *ahmaibyā)* except for the nasal. But the nominative *yūyám* (cf. Gath. *yūšấm* enlarged from *yūš*) is the result of assimilation to *vayám* (Av. *vaēm*, O. Pers. *vayam*). The remaining forms have noun endings: *asmắn*, cf. Gath. *ə̄hmā*, Av. *ahma; yuṣmắn;* fem. once only *yuṣmắḥ;* the instrumental and the locative *(asmắbhiḥ, asmắsu)* have entirely new formations (cf. Av. *xšmā* instr.). The mantras also make use of the obliques *asmé yuṣmé*, independent formations based on *me te*, which finally disappear on the advent of the Brāhmaṇas.

ADJECTIVE-PRONOUNS

These pronouns vary in gender, but their inflexions only partly correspond with those of substantives and adjectives. Most of them come down from Indo-iranian or are composed of Indo-iranian elements.

1) The relative *ya-*, Av. *ya-*. Iranian did not preserve it and Old Persian replaced it with the demonstrative *hya-*, *tya-* (Skt. *syá*, *tyá-*). Indo-aryan alone of Indo-european languages has preserved it to the present day and has made it (together with the adjectives and adverbs derived from it) part of the framework of its complex sentence.

2) The interrogatives *ka-*, *ki-* (and *ku-* in the adverbs). The phonetic alternation of the guttural (the Indo-european labiovelar) has disappeared in Sanskrit: beside *káḥ*, *kát* (Av. *kō*, *kaṯ*) there is no form corresponding to Av. *čahyā*, Gk. (Homeric) *téo*, or to *čiš*, *čim*, Gk. *tís*, but *kásya*, *kíḥ* (once only except in the compounds *mákiḥ*, "ne quis", *nákiḥ* "nullus"), *kím*, RV *kīm; cit* (Av. *čiṯ*) exists only as a particle.

The indefinite is expressed as in Iranian by the interrogative doubled or by the interrogative (alone or preceded by the relative) followed by *ca*, but principally by *cit* and later by *api*.

3) Various anaphoretic or demonstrative pronouns, the chief characteristic of which, inherited from Indo-european, is the union of several stems, one of them being peculiar to the animate nominative singular.

The anaphoretic *sá(ḥ)*, *sắ: tá-* is Indo-european, Gk. *ho*, *hós*, *hē: tó*. It remained in frequent use. It may have an emphatic sense or can be so attenuated as to serve as a particle; it might also often be regarded simply as an article if there was such a thing in Indo-aryan, cf. p. 310, 187. There is a derived form *syá; tyá-* more or less appropriated to the direct cases in the RV, which has not survived (with the exception of a few traces in Pali). The corresponding pronoun in Old Persian serves as a relative; and a lengthened form, also Indo-iranian, *eṣá*, *etá-*, Av. *aēša*, *aēta-* is very common.

The near demonstrative is composed of two stems *i-* and *a-* dating from Indo-iranian: masc. sg. nom. *ayám*, acc. *imám*, dat. *asmái*, instr. *anắ*, whence the new formation *anéna* etc., cf. Av. *aēm*, *imǝm*, *ahmāi*, instr. sg. Gath. *anā*, pl. Gath. *āiš*, Av. *anāiš* etc. Attention is called to the Indo-iranian particle -*am*, which occurs both in the personal pronouns and also in the indeclinable *svayám* (Av. *xvaē-*). The neut. nom. acc. *idám* is apparently isolated; Av. *iṯ* is always a particle like the Skt. *it*, but *idám* may be Indo-european cf. Lat *id-em* "the same". Sanskrit also possesses a stem *ena-*, used much in the same way as *a-* and this leads one to suppose that it is *a-* preceded by a particle, which is perhaps Indo-iranian, if the meanings of Pahlavi *ēn*, Persian *īn*, which is also used for the subject case, can be regarded as merely secondary.

Only the direct case of the remote demonstrative is Indo-iranian or at least composed of Indo-iranian elements: *asáu* cf. Av. *hāu*, O. Pers, *hauv; ava-* with which the Iranian paradigm is completed, appears only in the solitary gen. loc. dual *avóḥ*. But the nom. acc. neut. *adáḥ* has no known connexions; and even if remote parallels for *amu-* and *amī-* could be detected (Saka *mi* nom. sg. and pl. Kuchean *om?*), their form and relationship are obscure. A similar stem occurs in some ritual formulas (AV *ámo'hám* opposed to *sắ tvám*), but the sense is different.

The oldest Sanskrit still retains a certain amount of archaic detritus, which has no importance for the later history.

The inflexion of these pronouns is characterized in Sanskrit as

in Indo-european by special endings (neut. sg. *tát*, Av. *tat̰*, Lat. *is-tud*, Gk. *tó:* masc. nom. pl. *té*, Av. *tōi te*, Lat. *is-tī*, Gr. *toí*) and by the internal oblique case morphemes: in the singular, masc. neut. *-sm(a)-* (dat. *asmái*, Av. *ahmāi*, Umbrian *esmei;* extended in Indo-iranian to other oblique cases: loc. *asmin*, Av. *ahmi;* abl. *asmát*, Av. *ahmāt̰* beside the particle *át̰*, Gath. *āt̰* then), fem. *-sy-* (sg. *asyái*, Av. · *aiṅhāi*, cf. Old Prussian *stessiei* etc.); *-s-* in the genitive plural: masc. *eṣā́m*, Av. *aēšąm*, O. Pruss. *steison;* fem. *āsā́m*, Gath. *āṅhąm*, cf. Lat. *eārum*.

p. 129

According to a tradition which goes back to Indo-european, certain adjectives are inflected more or less completely with pronominal endings; *anyá-* other, has the complete series, like Av. *anya-;* so with *viśva-* all, and Av. *vīspa-*, except that the direct case of the neut. sg. is *viśvam*, Av. *vīspəm*, and, from the time of the Vedas, noun endings appear (also in the Gāthās). The synonym *sárva-* (cf. Av. *haúrva-*) takes only the pronominal inflexion; Skt. *sva-* one's own has only the remains of this inflexion, while Avestan *xva-* has it in full. Accordingly there are irregularities; but Sanskrit tends to encourage the pronominal inflexion: *katamát*, AV *katarát* against Av. *katārəm*, Gk. *póteron.;* nom. pl. masc. *úttare, uttamé, páre, pū́rve* etc. The classical language extends it still further, apart from some restrictions, and early Middle Indian preserves a large measure of it (As. *ubhayesaṃ* of the two, etc.) and even extends the loc. and abl. sg. endings to the inflexion of nouns.

THE NOUN IN MIDDLE INDIAN

EARLY MIDDLE INDIAN

The movement towards normalisation, which is already evident in Sanskrit, was accelerated in the spoken language by phonetic conditions. The assimilation or dislocation of consonant groups have resulted in the loss of clearness of alternative forms. As, *rājā*, *lājā* (king) have their genitives *rāñ(ñ)o*, *lājine* where *i* phonetically inserted differs from inherited *a* of *aṭ(ṭ)anā*, *kammana*. In *r* stems, in Girnar the instrumental of *pitar* is *piṭ(ṭ)ā* with the *r* missing (from which Pa. *pitarā* has been re-formed with no alternative form), while in other versions there are *pitunā*, *pitinā*, with vowels, but different ones, replacing *r*.

The suppression of diphthongs must have hastened the disappearance of the dual, when the characteristic *au* was confused with the gen. *-oḥ* and, what was more serious, with the nom. sg. *-o*. This event must also have had some influence on the survival or restoration of the instr. pl. *-ehi*, when *-aiḥ* finished its career as *-e* (some dubious instances of this have been adduced), which was not only a sign of the loc. sg., but actually employed as an acc. pl. Finally *au* of the loc. sg. of nouns in *-i-* and *-u-* by becoming *-o* was confused with the gen. sg. *-oḥ* and was preserved only in adverbial forms (Pa. *ratto* by night, *ādo* at the beginning), a pronominal ending being used for the locative of nouns, while the gen. sg. *-oḥ* was discarded in favour of a form modelled on the instrumental *-uno ;* and *-ino* for *-eḥ*.

Finally, the general changes in the finals of words caused much trouble; the shortening of long vowels, beginning with those with nasals, and thence the identification of *-aṃ*, the masc. neut. acc. sg. with the fem. *-am*, *-ām* and of this singular with the corresponding plural *-ān;* and again the identification of the masc. nom. in *-vān* and *-an* of the participles with the neuter. Indeed *ojasvat* is compelled by the loss of final *-t* to take the form *ojavaṃ*. The same loss of final *-t* causes the abl. sg. *-āt* to be

confused not only with the archaic inst. sg. and neut. pl. in *ā*,
p. 131 but also with feminine nominatives. By the loss of *-k, tādṛk*
is put among the *-i* stems *(lādi)* and, by the addition of *-n*, among
the *-in* stems: Pa. *tādin ;* similarly *marut, parisat* pass over to the
vowel stems: Pa. *maru, parisā.*   Final *s,* feeblest of final consonants
and already reduced to a voiceless aspirate in Sanskrit, had come
to characterize the nom. sg. of animate nouns in *-i-, -u-.*   The
result is the total loss of the distinction between animates and
neuters, first in the nominative (*aggi, akkhi* from which acc.
akkhiṃ was formed) and then partially, in the other cases (*aggī,
akkhī* beside *aggayo, akkhīni).*   As regards *-o* arising from *-aḥ*
(in *mano* etc.), its apparently masculine form has similarly caused
deviations in the paradigms.   It is thus easy to foresee that the
evolution of forms in Classical Sanskrit is not likely to give more
than an approximate idea of the disturbances found in Middle
Indian.

-*A*- STEMS

This is the most important group, firstly, because it has absorbed
a large number of consonantal stems and, secondly, because it
has affected the stems in short and long *-i-* and *-u-*.

Singular

NOM. ACC. :

In the masculine, Skt. *-o,* the form of *-aḥ* before a voiced
consonant, was associated with the form before a voiceless
consonant, consisting of a naturally blocked *-a,* which was, no
doubt, lengthened, when the *-ḥ* ceased to be heard. Hence Pa.
dhammo whence (*BSOS*, VI, 291 foll.) in the eastern dialects As.
Delhi *dhamme.*   The accusative is *dhammaṃ.*
  Nom. acc. neut : Pa. *rūpaṃ.*   Aśoka at Delhi has nom. *maṃgale,*
acc. *maṃgalaṃ.*   This innovation due to analogy is not a sign of
the loss of the neuter, which persists in the plural.   The same is
true for the pronouns.

INSTR. :

The old Pali texts preserve traces of Vedic *-ā,* which is hardly
distinguishable from the ablative.   The commentators explain it
by the more usual form *-ena.*   Aśoka is aware only of the type
dhammena, vacanena.

p. 132 DAT. GEN.:

The dative disappears (p. 157). It persists clearly in the thematic declension only and that to denote purpose (type *saggāya* with a view to heaven), particularly in verb nouns ad *dassanāya* in order to see. Aśoka at Girnar is in agreement with Pali. In the eastern inscriptions forms in -*āye* appear, resembling the dative and genitive singular of the feminine, and indeed they must have been modelled on the feminine abstract nouns. In Sanskrit there are parallel formations in -*nam* and -*nā*, and -*tvam*, -*tam*, -*tā*. Consequently Pali adds formations in -*taye*, -*tāye*, -*tuye* to the old infinitives in -*tave*, thus combining the stems -*tu*, -*ti* and -*tā*. A form is then made from the dative fem. and isolated from the regular declension to indicate purpose: As. *jīvitāye* with a view to (save) life; *hida(t)tikāye* with a view to the world below. Hence *a(t)thāye* (*a(t)tha(s)sa* exists, but as a genitive) and *mo(k)khāye* opposed to the genitives, such as *jana(s)sa*, which are, on occasion, equivalent to datives.

ABL.:

This case was expressed by a special form only in the thematic stems. Then, in consequence of the loss of the final consonant, it was merged in the instrumental: Pa. *sokā* =Skt. *śokāt* and *śokā. These two cases already had in Sanskrit points of contact through their meanings. So in the sixth rock edict Gir. *nāsti hi kamma-taraṃ sarvalokahitatpā* is equivalent to Kal. *na(t)thi hi kammatalā sa(v)valokahitena* There is nothing more important than the well-being of the whole world.

Yet the creation of an instrumental-ablative, the converse of the Latin ablative-instrumental, does not exhaust the semantic possibilities of the ablative. That is why Middle Indian preserves traces of an ancient adverbial suffix expressing direction (not origin): Skt. *uttarāhi* from the direction of the North (constructed with *vasati* dwells, according to the commentators on Pāṇini); hence Pa. *kāmāhi* by desire, Pkt. *chettāhi* from the field. Above all, it extends the use of -*taḥ* (Lat. -*tus*) expressing origin, whence *mukhato* from the mouth, and consequently *aggito* etc. This suffix, combined with the old ending, gives rise to the type *cāpāto* by the bow, which is rare in Pali, but popular in Prakrit. Finally, as in the locative and, no doubt, in imitation of it, an ending is created in Pali of a pronominal type: Sn. *gharamhā* beside *gharā*.

p. 133 LOC.:

The old form is retained: Pa. *dhamme*, As. Gir. *vijite*. But an

ending is also found taken from the pronouns: Pa. *dhammasmiṃ* like *tasmiṃ*, Pa. and As. Gir. *dhammamhi*, Kal. *vijita(s)si*, Shah. *vijayaspi*. This ending persists beside the old one. Buddhistic Sanskrit (v. Mahāvastu I, p. xvii) gives evidence of a combined ending *-*esmin*.

Plural

NOM.:

In animate nouns the form is as expected: Pa., As. *devā*. In inanimates the *rūpā* type often persists beside the *rūpānī* type (as apparently in Aśoka E. where participles in *-ā* occur as predicates of substantives in *-āni;* see Rock II sections B and C, but not D, where both end in *-āni*). In Pali the poetical form *dhammāse* is reminiscent of Vedic *-āsaḥ*, but the final vowel has not yet been accounted for.

ACC. MASC.:

The old form *devān* became **devāṃ* like the fem. sg. (there are examples of this in Buddhistic Sanskrit), and then **devaṃ* a plural indistinguishable from the singular and not viable. Here perhaps is the starting-point of *-āni* regarded as *-ān* plus a particle, as apparently in the case of the nom. *-ās-e*. This *-āni* is met with in Aśoka, Pali and Jaina prakrit (Lüders, *Sitzb. Berlin*, 1913, p. 994).

The normal ending in Pali and at Girnar is *-e*, due to analogy: just as *kaññāhi*, *jātihi*, *aggīhi* correspond to the acc. pl. *kaññā*, *jātī* (nom. *jātiyo*), *aggī* (nom. *aggayo*), so *purisehi* requires an acc. *purise* (nom. *purisā*). It should be noticed, moreover, that among the pronouns, *ye*, *te*, *ime* express the accusative as well as the nominative: the opposition of *tehi tesu* in contrast with *tāhi tāsu* has led to the establishment of *te* in the same function as *tā;* this accusative *te* may have consolidated the new form of the nominal accusative.

INSTR.:

The ending *-aiḥ* must have passed into *-e*, which did not survive and Skt. *-ebhiḥ* was the form preserved; or else *-e* was enlarged like the abl. *-ā* by *-hi*, as has been said above. Hence Pa., As. *devehi* and in a temporal sense *bahūhi va(s)sasatehi* for several centuries.

DAT. AND ABL. :

Skt. *-ebhyaḥ* would have given **-ebbho* with the only double

consonant in the inflexion although *ēhiyo* was just possible.   But
we have seen that generally speaking the dative disappeared in
favour of the genitive and the ablative and the instrumental
singular were confused.   This is why the ordinary form used for
the dative is the genitive and also why we find in Aśoka *ājīvikehi*
(cave given) to the Ājīvikas, and Gir. *tehi va(t)tavyam* it is necessary
to tell them, opposed to Shah. *teṣam vat(t)ta(v)vo.*

Examples of the ablative are rare: Pa. *vītarāgehi pakkāmum*
avoided those who.wre freed from passion.

GEN. AND LOC.:

We find the forms expected: *devānam, devesu.*

-I- (-in-) AND *-U-* STEMS

Singular

NOM. AND ACC.:

The animate nouns raise no question: *aggi, aggim: bhikkhu,
bhikkhum.*   The analogy of *mūlam* served to differentiate the
inanimates: *akkhim (akṣi), assum (aśru).*

INDIRECT CASES.

The endings of *agneḥ, mṛdoḥ* raised problems, which were evaded
by the extension of the type *agninā, akṣīṇi.*   This was easily
done, for owing to the fact that the declension in *-in-* was modelled
on the declension in *-an-* (hence the alternation *-i-; -in-*), it was
merged in the *-i-* declension and Epic Sanskrit in fact shows
traces of the mixing.   The ground was thus prepared for the
creation of the gen. sg. *aggino, bhikkhuno* and in another connexion,
the acc. sg. *hatthim,* nom. acc. pl. *hatthī* (Skt. *hastinam, hastinaḥ*).

In another direction a genitive like As. Kal. *piyada(s)si(s)sā,*
Shah. *priadra(ś)śi(s)sa* opposed to Gir. *priyada(s)sino(-darśin-)*
bears witness to the antiquity of the movement towards the
thematic type: hence *aggissa,* Buddh. Skt. and epigraphic *bhi-
kṣusya.*

The locative in *-au (agnau, mṛdau)* could no longer be retained
in that form (p. 130) (except in formulas of an adverbial type:
Pa. *divā ca ratto ca*).   Just as Pa. *dhammasmim* was founded on
tasmim, imasmim, so was Pa. *aggismim, aggimhi* founded on
amusmim.   The ablative in *-smā* is also met with, but it has to
compete with the old instrumental: *kasmā hetunā* by what (abl.)
reason (instr.), not to mention the adverbial form, Pa. *cakkhuto*

(cakṣu(ṣ)-), As. *Suvaṃnagirīle* with long *i* corresponding with the *-āto* of the thematic stems.

The locatives As. E. *punāvasune* at the time of Punarvasu, *bahune jana(s)si* about many people, have assumed the ending of thematic stems. Pali in particular employs the pronominal ending and also preserves some old forms; but nom. acc. *pabhaṅgunaṃ*, loc. *pabhaṅgune* from *pabhaṅgu* perishable, are evidence of thematisation (Sadd. p. 235, n. 2).

Plural

The thematic stems exercised influence from a very early date: from Indo-iranian times on the genitive *(-īnām* Av. *-inąm)*, from the beginnings of Sanskrit on the animate accusative (*-īn* after *-ān* against Av. *-īš*) and on the neuter direct case *(-īni,* Av. *-ī̆)*. The new nominative, Pa. *aggī, bhikkhū,* is due to the same tendency. It is difficult to decide whether the neuter *akkhī* is carried on from the Vedic dual or is formed from *akkhīni* after *mūlā(ni)*. It may be noted that Aśoka has the animate acc. *ha(t)thīni* like *pulisāni*.

As for the animate acc. *aggī,* the ordinary opposition of masc. neut. and fem. paradigms prevents us from considering it analogical with *jātī.* For *jātī* is valid for the nom. and acc. like *kaññā (kanyāḥ),* but the thematic masculines have two distinct forms, *devā* and *deve.* Are we then to recognise in *aggī* a continuation from Indo-iranian cf. Av. *-īš* ? This hypothesis, tempting though it is, is unnecessary. In any case *-īn* like *-ān* could not survive in Middle Indian, and the tendency to identify the two direct cases in the plural is confirmed by epic Sanskrit in which accusatives in *-ayaḥ* are frequent. Pali preserves some old forms in the oblique cases: *ñātibhi, bhikkhusu;* but as a general rule it lengthens the vowel of the stem (there are a few instances in Vedic) with the effect of reproducing the rhythm of *-ehi, -esu* and, of course, *-īnām;* hence *ñātīhi, bhikkhūhi,* As. E. *nātīsu, bahūhi, bahūsu.*

Feminine vowel stems

In the same way as the masculine nouns were subject to the influence of the thematic declension, the feminines tended to be grouped in contrast with them. But in their case the *-ā* stems are not dominant and action is reciprocal. This agrees with the opposition of the masc. neut. *-aka-* to the fem. *-ikā,* which exists from the time of Sanskrit until the modern languages. The *-u*-stems were modelled on the *-i-* stems.

The accusative singular is the same in short and long vowel stems: Pa. *kaññaṃ*, *jātiṃ*, *nadiṃ*. Pali graphy distinguishes nom. *jāti* from *nadī* still, but even at Girnar Aśoka gives *vadhī*, *nijha(t)lī*, *-pratipa(t)lī*, *anusaslī*, *lipī* beside *apaciti*, *rati*. The short vowels which are found elsewhere are therefore graphic or phonetic, not morphological. As was foreshadowed by the ccnfusion displayed by the masc. type *aggi-* and owing to the parallelism with the feminines in *-ā*, which have no corresponding short vowel, it is the type with the long vowel, which is generalised.

The acc. pl. is *ratliyo*, *jātiyo* and from them Pa. *dhenuyo* (the *y* of which betrays its origin). Under the influence of the *kaññā* type the accusative is found to resemble the nominative: Pa. *ratlī*, As. Dhau. (perhaps) *i(t)lhī*, Shah. *aḷavi* beside Gir. *aḷaviyo*. According to H. Smith (Saddanīti, p. 448, n. c) certain Pali verses record a type in *-īyo* (read - ◡◡ or - - -).

But *kaññā*, the plural like a singular, tends in its turn to be differentiated. Hence the type *kaññāyo* (once attested in the animate noun *mahiḍāyo* at Girnar).

The oblique cases are very sparingly inflected. This is due to phonetic reasons. The gen. abl. in Pali is combined with the instr., *jātiyāḥ* with *jātiyā*. The single type As. *pūjāyă* (with the final vowel uniformly short in Pali) is formed on this model and has the advantage of cutting out the instrumental **kaññayā* which is discordant with the rest of the declension. There remains only a grammatical oblique case. As regards cases denoting

locality, Aśoka clearly distinguishes the ablative of origin *Ta(k)khasilāte*, *U(j)jenite*, from *tulanāya* in haste (and *va(ḍ)-dhiyā*). For the locative *kaññāya*, *jātiyā* tend to absorb the old form, under the influence of the locative and temporal uses of the instrumental (Aśoka retains *Tosaliyaṃ*, *Samāpāyaṃ*). It is a question, however, whether the Pali locative is not simply a continuation of the Indo-iranian locative, in which the nasal, consistent in Sanskrit, had not become established: compare Pa. *Pabhāvaliyā gatāya* after the departure of Pabhāvatī, and O. Pers. *būmiyā vazrkāyā* on the great earth.

These are not the forms which have survived. Beside them, attested by the non-western inscriptions of Aśoka, exists a series of obliques in *-e*, which have come from the old form of the dative: *kanyāyai*, *deviyai*, *bhṛtyai* (the last from a short *i* stem). The prose of the Brāhmaṇas and of the older Upaniṣads uses these forms to denote the genitive. This use was discontinued in Classical Sanskrit, but it has been preserved or restored by Middle Indian, as was done in the case of the masc. instr. pl. in *-ebhiḥ*.

Hence As, *dutiyāye devīye* (gift) of the second queen, like *vihiṃsāye* for harm (we have seen, p. 132, that this form was extended to the masculine to express a special meaning). But Asokan still distinguishes the instr.-abl. *va(ḍ)ḍhiyā* through progress, from the gen.-dat. *va(ḍ)ḍhiye* to which is now added the locative: *cātummāsiye* at the first moon of the four month period, *palisāye* in the assembly.

Consonant stems

We have seen how since very early Middle Indian the consonantal declension crumbled away for phonetic reasons. Developments of a morphological kind had a similar effect and the more readily because of the general tendency towards grammatical levelling. A clear instance is that of the *s* stems. In the masculine Pali has *candimā* only, which persists owing to its resemblance to a nom. fem. and is afterwards regarded as feminine in Prakrit. Asokan has some neuter nominatives: *yaso*, the comparatives *bhuye, davīye* ; perhaps the gen. *dighāvuse*. Pali has little more, but the instr. sing. was sufficiently resistent to encroach upon the thematic stems: *balasā, damasā* beside *damena* (nom. *balaṃ, damo*). As a general rule the *s* stems passed over to the thematic declension through reduction or enlargement: *dummano, avyāpannacetaso* ; neut. pl. *sotāni (srotāṃsi)* ; the comparatives; *seyyo*, fem. *seyyā*, neut. *seyyaṃ* and *seyyaso* (but the ordinary comparative is by preference formed with the suffix *-tara-*).

-R-, -N-, -NT- STEMS

Of the old consonant stems, these stems alone preserve the fragments of a declension with alternations. The assimilation to vowel stems had already been carried very far in Asokan and in Pali. The Pali instr. sg. *satthārā, pitarā* dates from a period in which the Skt. grouped consonants had to be assimilated or dissociated. Assimilation as in As. Gir. *pi(t)tā, bhā(t)tā* beside *bhātrā* produced a form ill adapted to the remainder of the paradigm. Pa. *satthārā, pitarā* were a better match for the loc. *satthari, bhātari*, As. *pitari* because of the insertion of the vowel. Finally the lengthening of the vowel on the model of the direct cases put the acc. *satthāraṃ* and the instr.-abl. *satthārā* on the same footing as *kammāraṃ* and *kammārā* and led to the constitution of a new paradigm, which was extended to the plural: *satthārehi, satthārānaṃ*.

But the new system was not completed. It did not succeed in including either the nom. acc. pl. *satthāro* which had assumed the form of the singular or the characteristic genitive singular *satthu*, *pitu*.

Here again it is the instrumental and locative plural, supported by the precedent of compounds, which are the source of successful analogies. In them *r* in direct contact with an ending changed to *i* or *u ; i* for preference in the East; *-u-* in the West and in Pali. The result was assimilation with the *-i-* and *-u-* stems. The forms **satthubhi* etc. disappeared, but Pa. *satthūhi*, *satthūnaṃ*, *satthūsu*, *pitūnaṃ* (beside *pitunnaṃ* which is difficult to explain), As. E. *bhātinaṃ*, *nātinaṃ*, Shah. *spasunaṃ* have carried with them the Pa. instr. sg. *pitunā*, As. E. *pitinā*, Shah. *pituna* and in the genitive the enlargement of *satthu*, *pitu*, As. *mātu* (which came directly from Sanskrit) into Pa. *satthuno*, *pituno* and then *satthussa*, *pitussa*, *mātuyā*. The eastern forms of Asokan are of importance because they show that the innovations did not originate from the genitive singular. Moreover, Pali has the ablatives *pitito*, *mātito* and derivatives like *bhātika-* beside *bhātuka-*.

The nouns of relationship, however, were particularly obstinate. In the same way that Vedic had created *pátyuḥ* and *jányuḥ*, Pali has *sakhāraṃ* for the acc. sg. of *sakhi-* and *sakhāro* for its nom. pl. (the ordinary form, however, is *sahāyaka-*). Similarly the Mahāvastu has *bhāryaram* for *bhāryām* and Jaina Prakrit *bhavantāro (bhayantāro)* Aupap. 142. The Skt. nominative feminine *duhitā*, which is scanned once as a dissyllable in the Ṛgveda, assumed the form *dhītā*, declined like the Pali *kaññā*, under the influence of *dhāyati* sucks. Pali has beside the acc. sg. *dhītaram*, pl. *dhītaro*, the gen. *dhītāya* with *dhītu* and *dhītuyā ;* and *dhītānaṃ* beside *dhītūnaṃ*. Similarly the gen. sg. *mātāya* beside As., Pa. *mātu* and Pa. *mātuyā* (like *dhenuyā*). As to *sasā* from *svasr-* it has been replaced by Skt. Pa. *bhaginī*.

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Thus in different ways the nouns in *-r-* are in process of joining the thematic stems and the normal feminines. Certain Skt. words are also explained in this way: ŚB *nāpitā-* (from **snāpitr-*), *bhaṭṭa- (bhartr)*.

The inflexion of the *-n-* stems is similar, at least in the singular, to the *ātmā* model, Pa. *attā*, but where the zero grade of the oblique cases approaches the Skt. consonant stems, the alternation is not able to persist as it was. Pali, Asokan at Girnar and Besnagar recognise gen. *rañño*, instr. *raññā*; but Pali also uses *rājino*, *rājinā*, Asokan *lājine*, *lājinā ;* in the plural, instr. *rājūbhi*, *rājūhi*,

loc. *rājūsu*.   In other words the -*n*- stems join the -*r*- stems and the comparison of As. E. instr. *lājīhi* with *pitisu*, opposed to Pa. *rājūhi* compared with *pitūhi* is significant in this connexion. Even in the nouns in which Sanskrit has -*a*-, this vowel adapts itself to the new paradigm in favourable cases: Pa. *brahmuno*, As. E. *at(t)unā* and even Pa. *kammunā*.

Finally even the *a* representing the zero grade of -*an*- was the starting point of a direct adaptation to the thematic declension: gen. *rājassa*, acc. *brahmaṃ*; neut. *kammaṃ*, instr. *kammena*; gen. pl. *attānaṃ*, loc. *kammesu*; Asokan has nom. *kamme*, acc. *kammaṃ*, gen. *kamma(s)sa* beside *kammane*.

In Sanskrit also the nominative was the starting-point of new formations (cf. *duhitā* above).   AV *majjá* m. marrow, is succeeded by ŚB *majjá* fem. and, indirectly, Pa. *miñjā*.   Epic poetry has *sīmā* fem. from AV. *simán*- masc.; the lexicons give *plīhā* fem. from *plīhán* masc.; and if the Pkt. fem. *vaṭṭā* (from which ĀpGS. *vartman*- fem. must have been formed) represents the neut. *vártma* road, it came, no doubt, through an intermediate form *vartmā masc. (*Studia indo-iranica*, p. 17).

The adjective must have been one of the points of least resistance to the tendency towards thematisation.   It is noticeable in a form like As. pl. *mahātpā* equivalent to *uḍārā*; instr. sg. *mahātpena* opposed to *khu(d)dakena*.

In the -*nt*- stems Asokan has still the present participle nom. pl. Gir. *tiṣṭanto*, instr. sg. *hetuvatā*, *bhagavatā*.   The nom. sg. masc. presents a difficulty: As. E. *bhagavaṃ*, but Kal. Shah. *pajāva* corresponding to Pa. *guṇavā* (*kiyaṃ* As. Pillar II has no connexion with *kiyant*-: it is equivalent to *kiṃ iyaṃ*; *māhā apāye* great misfortune, of the first separate Dhauli edict must be a compound, as the corresponding Jaugada form shows).   In Edict XIV Dhauli and Jaugada have a thematic form masc. sg. *mahaṃte*, which the other versions avoid in favour of *maha(l)lake*. From *yāvant*- Aśoka uses only the neuter *yāva* as a preposition, the adjective is the derivative *yāva(t)taka*.   Also the Gir. participle *karaṃto* (*karāto* in the same inscription must be due to a clerical error); elsewhere the older form is restored in an enlargement: gen. sg. *aśa(n)ta(s)sa* =Skt. *aśnataḥ*, while *kalaṃtaṃ*, *karaṃtaṃ* function as absolutes.   Present participles in Asokan are in the Middle for preference and consequently regularly thematic.   Pali, which has e.g. *samāno* being, freely employs *passaṃ*, *kubbaṃ*, *bhavaṃ* (gen. *karoto*, *bhoto*), but also at a very early stage nom. sg. masc. *passanto*, gen. *passantassa*; *jāno*, *passo* occur only once, in poetry.   The nominative of stems in -*vant*- has -*vā*: *guṇavā*,

saṭimā, bhagavā; which are oddly reminiscent of Av. *drəgvå* with its ending resting on *-vās*, but in Pali also *bhavaṃ Goṭamo,* and similarly *arahaṃ* in the old formulas and *arahā* treated as an independent word, Saddanīti, p. 173. The new forms seem to have been connected with the -*n*- stems (there are traces of this in Sanskrit) and there is an ambiguous form *saṭimaṃ*, which is actually found employed as an acc. sg. *Ojavaṃ* replaces the neut. *ojavaṭ*, but *saṭimā* itself must have been taken to be a nom. pl. or a fem. and used as such (nom. pl. masc. *maṭīmā*, nom. sg. fem. *kiṭṭimā*). But for the stems in -*vant*- as for the present participles, the form adopted for general use was the enlargement of the *sīlavanṭo* type.

PRĀKRIT

The forms of classical Prakrit differ from those of Early Middle Indian chiefly by reason of their greater phonetic wear and tear. The grammatical system is the same. There is simply a marked predominance of new forms and an increase of simplification. There is no longer any notable difference between the several prakrits and, indeed, they are not independent dialects. They have one and the same grammatical norm and with more or less rare exceptions, variations from it are entirely determined by the degree of phonetic or morphological archaism of the forms. The choice between them does not necessarily obey any rule. Thus in the same authors we meet with nom. sg. *juvā* and *juvāno* (Skt. *yuvā*); *sāsaṃ* and *sāsanṭo* (Skt. *śāsan*); nevertheless the participle in -*anṭo* is manifestly dominant.

It must also be pointed out that even those forms, which appear
to be the most recent, are often artificial formations from Sanskrit. This fact may be illustrated by an isolated word such as *śvā:* Pali has, beside the nom. sg. *sā*, pl. *sāno, suvāna-* and *suna-* with cerebral *ṇ* as a proof of authenticity, and also *sunakha-* which is almost certainly a punning derivation: *su-nakha* with good nails; Pkt. *sāno*, which in appearance carries on a Pali form, is in all probability a remodelled word. It is no accident that all the modern names of 'dog' are different. Similarly *pantho* road, and *a fortiori paho* (-*paho, -vaho* are particularly frequent in compounds) are suspect, since the word which is now replaced by a derivative of the fem. *vaṭṭā*, is no longer in common use, except in certain peripheral languages. A still better example is *addhā (adhvan-* Pa. *addhāna-)* which seems to survive only in Sgh. *adan-maṅga* engthy way.

The abl. sing. masc.-neut. in -*ā* is not rare and in Mahārāṣṭrī -*āhi* commonly occurs; the pronominal form in -*amhā* is missing.   The normal form is the derivative of the adverbial suffix, but, except in Jaina prakrit, consistently with -*ā*, Saur. *puttādo*, Mah. *puttāo*.

The typical locative is Amg. *logaṃsi*, Mah. *loammi*, sometimes *logammi*, Mg. *kulāhiṃ*; -*ṃsi* is derived from -*smi(ṃ)*, -*mmi* from -*mhi*, both known to Pali.   Mg. -*āhiṃ* is either a continuation of the Skt. type *dakṣiṇāhi* (see p. 132) or due to the opening of the sibilant of -*aśśiṃ* (-*asmin*) cf. As. E. -*a(s)si*, just as the Mg. gen. *kāmāha* may come from -*aśśa*.

Phonetic wear and tear explains the fact that the final nasal of the genitive plural has become optional: *puttāṇa*; conversely Mah. instr. sg. *putteṇaṃ*, loc. pl. *puttesuṃ*, instr. pl. *puttehiṃ* (used also as loc., Ghatage, *IHQ*, XIII, 1 52) are often written with a nasal.   The direct case of the neuter plural *phalāiṃ* beside *phalāṇi* is explained in the same way.

Beside the acc. pl. masc. *putte*, which is normal, we often find *puttā*, which is not derived from Sanskrit or Pali, but must be due to analogy with the types *aggī*, *riū* (cf. Skt. *ripūn*), *vahū*, and even *mālā*.

The practice in Prakrit as in Pali is to use the instrumental for the ablative in the plural as opposed to the abl. sg. in *ā(d)o*. But attempts were made to set up a special form.   The one most wide-spread was obtained by attaching the adverbial suffix -*to* to the instrumental: *puttehiṃto*.   The grammarians further note (from texts?) *puttāhiṃto*, *puttesuṃto*, and the hybrid *puttāsuṃto*, which are formed on the same principle.   They admit the singular forms also.   These attempts, first made at an early date (RV *patsutáḥ*), were of no importance in the history of the language.

The same ablative suffixes are attached to the feminine: Saur. *mālādo*, *vahūdo*, Mah. *mālāo*, *vahūo*; and in the plural: *mālā-hiṃto*, etc.

In the other oblique cases of the feminine, the ending -*āa* persists. It is rare in texts and is forbidden by Vararuci.   The regular form is -*āe*.   Here Prakrit contradicts Pali as a whole (but *puṇṇamāye* in verse, v. Saddanīti, p. 675; *sabhāye*, Vin. III, 200) and agrees with the eastern dialects of Asokan: thus *mālāe* and similarly *devīe*, *vahūe* with long vowels.   Similarly the nom.-acc. pl. *mālāo*, which corresponds to Pa. *mālāyo*, inspires the lengthening of the vowel in *devīo*, *vahūo*.

What is more remarkable is the reaction of the feminine on the masculine and the verses in the Jaina canon have forms like *māṇavāo* in the nominative plural beside the *devā* type.   Rare

though they are, they must, at least, mirror an actual fact.   This heavy ending balances the accusative form of the *gaāiṃ (gajān)* type, which was handed down to Prakrit from the Asokan era. A few instances of *isīo (ṛsayaḥ)*, *girīo* are found also in the classical literature.

The two dominant inflexions absorbed the others or served as a model to them.   The formation of the masc. *mano* and neut. *manaṃ* types, the former Māhārāṣtri and Jaina, the latter especially in Śauraseni and Māgadhi, have already been mentioned. Similarly *kammo* (rare) and *kammaṃ* (normal).   The *-ā* nominative of the masculine in *-an* was the cause of a few of them being made feminine: *addhā* (and *vaṭṭā*) and *umhā* may be added to *candimā*, which is still masculine in Pali.

The *-n-* stems continue to be assimilated to nouns in *-i-*: *rāa (rājā)* has its instr. pl. *rāīhiṃ*, gen. *rāīṇaṃ* with the result that all the parallel endings have the same rhythm.

APABHRAṂŚA

To the Prakrit forms Apabhraṃśa adds forms, which are their doublets deteriorated phonetically and also new endings, in proportions varying with different texts.   The former are caused by the shortening of the final vowels and indistinctness of their *timbre:* Pkt. nom. pl. *puttā* becomes *putta;* the nom. sg. *putto* is also shown as *puttu;* in another direction the nasal vowel of the acc. sg. *puttaṃ* closes and produces *puttu;* and the final vowel of this *puttu*, which is both nominative and accusative, may become so indistinct as to be confused in certain late texts with *putta* arising from nom. pl. *puttā*.

p. 143   The other characteristics of the system are the frequency of *-h-* in the endings and the nasal vowels in the oblique cases of the plural.

The characteristic endings are as follows:

MASCULINE AND NEUTER THEMATIC STEMS

Singular

The nom. acc. *puttu* (which may become *putta*), *phalu* has been explained.

The whole ending of the instrumental *puttĕṇa(ṃ)*, *puttĕ*, *puttiṃ*

can be shortened, contrary to the rules of Prakrit. Moreover, the nasal loses its occlusion, as in the Pkt. neut. pl. *-āiṃ*.

The locative has two forms: *putti*, a variety of Pkt. *putte*˙ and *puttahiṃ* which recalls Mg *puttāhiṃ* and also the older Middle Indian adverbs *tahiṃ* there, Pa. *saṇiṃ (śanaiḥ)*, Pkt. *bāhiṃ* etc.

The ablative *puttahĕ* (cf. Pa. *bhayāhi*, Pkt. *mūlāhi*) is connected with this second series of forms. There is another form of ablative *puttahŏ* which, most probably, is Pkt. *puttāo* adapted to the forms just mentioned (or possibly it is taken from the form with the short vowel, Pa. *puttato*).

There are several genitive forms: *puttaha* is pronominal in origin (Pkt. *maha*, whence *tuha*); also perhaps *puttaho*, for besides *maha* Apabhraṃśa has *mahu*, which is composed of *maha* and *majjhu* *(mahyam)* and *tau* (*tao* from *tava*?). It should be mentioned that *puttaho* is also an ablative. This together with the fact that both cases are represented in the same way in the feminine singular and plural, perhaps explains the use of the genitive as ablative in *nisariyaī mandirāsu, sariyaī mandirāsu* they go out from the temple, Bhav. 342 and p. 34*.

As for *puttassu, puttăsu,* their final vowel is analogous with *puttaha, puttahu.* Perhaps also it is just the graphic representation of a final *a more* closed than the *a* developed from a long *ā* in the nominative plural *puttā.*

Plural

Nom. acc. *putta, phalaī* answer to Pkt. *puttā, phalāiṃ.* It will be noticed that a single direct case has been established in the singular and plural

Instr. *puttễhī, puttahī;* loc. *puttahī.* The traditional ending of the instrumental, which would normally result in *puttihī,* *puttisu* was confused with that of the nouns in *-i* such as *aggihī;* hence

the reappearance of the thematic vowel, which extends henceforth over the whole paradigm. But the *puttasu* so obtained cannot be used, as it is already a genitive singular and accordingly an important case. It was preferred to combine the locative and the instrumental, at the risk of having a form common to the singular and plural. This little fact is one of those which enables us to obtain a glimpse of the artificial nature of the language. Such ambiguity would have, no doubt, been found awkward in an actual spoken language, which retained the distinction of number, but it is legitimate to suppose that at the time when Apabhraṃśa was written, the expression of cases and particularly the locative

by groups of words or compounds signifying "inside, above, near" was already prevalent. It will be seen that the instrumental closely resembled the locative singular, both when the forms were *puttem* and *putte* and later when the loc. *puttahī* has in turn become *puttē* (for plural, cf. p. 141).

Genitive *puttăhā* (already Prakrit according to certain grammarians, see Nitti-Dolci, *Les grammairiens prakrits*, p. 202). Granting that *puttena* gave *puttē* (like *phalāṇi*, *phalāiṃ* of Prakrit), one would expect here either **puttāṃ* or **puttāā*. These inconvenient forms were replaced by a double genitive: *puttaha* plus *ā* from -*āṇaṃ*. Perhaps there are equal grounds for assuming an effect of the instrumental in -*ehiṃ;* the formal link between genitive and instrumental appears in the gen. pl. of pronouns in Jain Prakrit: *tesiṃ* for *tesaṃ* after *tehiṃ*. The result is a dissyllabic ending like all the endings of oblique cases, singular and plural. Simultaneously an opposition of the plural to the singular was set up by the mere presence of nasal vowels: *puttaha: puttahā*. This perhaps explains the new ablative form *puttahū* opposed to the sg. *puttaho*.

The nasal of *puttāṇaṃ* had already in Prakrit overflowed to the instr. *puttehiṃ* and the locative *puttesuṃ*.

FEMININES

Singular: Nom. and acc. (without nasal) *māla*, sole form as in the masculine. In the oblique cases we look for *mālaĕ* and this is, in fact, the form for the instrumental; but the characteristic *h* of the oblique cases of the masculine determined the notation *mālahe, hi*. The loc. *mālaī* which is also met with (Bhav. p. 35*) shows that the masculine actually served as the model.

Plural: Nom. acc. *māla*, instr. loc. *mālahī*. Gen. *mālahā* with which *mālahu* is also found. But the latter form is ill attested and looks like an ablative. In that case it would prove the survival of the Prakrit *mālāo* type even after the creation of the singular *mālahe*.

OTHER STEMS

The -*i* and -*u* declensions have no firmly established paradigms and present no important problems. We must note the disappearance of the gen. sg. type *aggissa*. Opposed to *puttaha* we have *aggihĕ*, *aggihi* and *guruhĕ*, and indeed *guruhu; aggihu* or *aggihū* in the plural and *devihu* fem. pl. beside *sauṇihā (śakunī-nām)*, but *muṇihī, sahihī* in the Sanatkumāracarita.

PRONOUNS

The tendency to systematisation, which reduced the number of noun declensions, had quite the opposite effect on pronouns. There were many new departures which had their origin in analogy and there was no guiding norm.   Thus there resulted a multiplication of forms, sometimes obscure in origin, but rarely open to suspicion as regards their genuineness.   They give evidence of a period of divergent and often provisional experiments which precede a more stable redistribution of forms in the modern languages.

PERSONAL PRONOUNS

Singular

Direct Cases.   The opposition of the Vedic dissyllabic nominative *t(u)vám* with the monosyllabic acc. *tvám* is continued in Pa., Pkt. *tuvaṃ* (beside Pa. *tvaṃ*) against Pa., Pkt. *taṃ*, but in Prakrit *tumaṃ* is valid for both cases.   So in the first person we have Pa. As. Gir. *ahaṃ*, Pa. acc. *maṃ*.   There is a derived form Pa. *ahakaṃ* (Sadd., p. 289), Pk (Mg) *ahake* (Hāla), *ahayaṃ*, which appears as a dissyllable through the loss of the initial vowel: As. E. *hakaṃ*, Mg. *hage, hagge*, whence Apa. *haū*, which has engendered *tuhū*, like it exclusively nominative; *(a)haṃ* was preserved by agglutination with certain verb forms, see p. 234.

It is useless to collect all the indirect case forms here.   A few examples will suffice to explain the facts.   For the first person genitive Middle Indian preserved *mama*.   But the genitive and dative being syntactically equivalent, the otherwise unstable nasal

of *mayhaṃ* was given to *mama*, which in this way unites with the acc. *mamaṃ*.   As. Shah. *maa* is a development in another direction, and goes back to IE **meghe* cf. **tebhe*, O. Slav. *tebe* and perhaps Pkt. *saha-*, corresponding to O. Slav. *sebe* and, in meaning, to Skt. *svayam*   Fortunately, as there is no corresponding form in Pali, it guarantees the antiquity of Pkt. *maha*.   This word *maha* has in its turn assumed the nasal of Skt. *mahyam*, whence *mahaṃ* and the second person *tuha, tuhaṃ* have been evolved by parallelism v. p. 15.

The ablative *mat* which is too short and inconvenient, has assumed the normal Prakrit suffix and becomes *matto*, which

serves as a model to the forms known to the grammarians and constructed from the genitive: *mamatto, majjhatto*.

The instrumental also takes the genitive as a base: As. E. *mamayā*, once *mamiyā*, not to speak of *mamiyāye* in the separate edicts in which we find traces of the instrumental *maye* known to us later through the Mahāvastu. Bhabra, on the other hand, forms *hamā, hamiyāye* on the nominative, with, however, ill defined functions. Possibly the Mvu. form *maye* combines the instrumental *mayā* and the old enclitic *me*, which is an optional equivalent or it may be a matter of a noun ending. However this may be, the form lasts as long as the classical Prakrit: *mae, mai* and similarly in the second person *tae, tai* (replacing Pa. instr.-abl. *tayā*).

The genitive serves as a stem even for the direct object *mamaṃ* beside *maṃ*. This is possibly traceable to Indo-european. If not, the transfer may have been aided by the two values of the enclitics *me, te*.

All these formations are the more interesting because they are doomed to a more or less speedy disappearance (e.g. the Asokan instrumentals are attested only in the Asokan inscriptions), in favour of the old dative, which the pronouns preserve, while it disappears in the nouns. Pa. *mayhaṃ* (whence Pkt. *majjha(ṃ)*, Apa. *majjhu*) leads to the formation of *tuyhaṃ* (Pkt. *tujjha;* in addition to *tujjhu* Apa. has *yudhra*, Bhav. *tuddhu* deformations of it which have not been explained). This form *tuyhaṃ* allows the divergent form *tubbha(ṃ)* (Skt. *tubhyam*) attested only in classical Prakrit and accordingly suspect, to be side-tracked.

The stem *tu-* of the 2nd sg. is extended to the other forms. We have noticed gen. *tuha;* Niya adds gen. *tusya* (nom. *tuo*). The instr. *tue, tui* are taken into Prakrit from *tae, tai* mentioned above and they are combined again with *tumaṃ* and give *tume* and *tumae*, which in its turn assumes the long vowel of the ablatives *tumāho, tumāhi* and becomes *tumāe*. All these forms are found together in the same texts: Gauḍavaho *tae, tai, tumāe, tumāi;* Hāla *tue, tui, tumae, tumāi;* Jaina *tae, tume, tumae*. It is difficult to estimate what proportion of these words are authentic. Apabhraṃśa continues the oldest of them giving it the nasal of the noun instrumental, *taī (paī* appears to be its doublet remodelled on the Sanskrit, which in any case has left no trace of it; *p-* in pronouns was too reminiscent of the *ātman-* series, Pkt. *appā.*

Plural

The initial sound of *vayam*, nominative of the 1st person, which was too reminiscent of the 2nd person enclitics Skt. *vaḥ*, Pa. *vo* was assimilated to the singular form: hence Pa. *mayaṃ*, As. E. *maye* and later Dutr. and Mvu. *mo* for *no*, Skt. *naḥ*. And that is not all. In Asokan the accusative of *maye* is *a(p)phe*, *a(p)pheni* (cf. p. 151), which immediately recalls Ved. *asmé*, a form of the oblique, admitted as a direct case by Yāska alone. *Apphe* is based on **apphaṃ*, a direct descendant of Skt. *asmán*, unless indeed **apphaṃ*, Pa. gen. *amhaṃ* is derived with the Skt. *asmán* but independent of it, from a representative of IE **ṇsme*, Lesbian Gk. *amme*, which is preserved in Hāla as the acc. gen. *amha*, cf. p. 15. The objective use is only a passing phase. Pkt. *amhe* is nom. acc. and the final vowel of As. *maye* seems to be taken from it; Pa. *tumhe*, As. E. *tu(p)phe* are valid for both cases. This *tumhe* is a recasting from the singular stem of *yuṣmé*, which has replaced *yūyam*, a Sanskrit creation, which is inconvenient in Middle Indian; and **tūyaṃ* would have been too close to the singular. For Pkt. *umha-* see p. 15. In the end there is only one stem for each pronoun in the direct and oblique cases. No comment on them is needed.

ADJECTIVE-PRONOUNS

The pronominal stems in Sanskrit had been reduced in number and those preserved grouped together. In Middle Indian the simplification of stems and paradigms was continued.

The stem *amu-* from which Ved. *amútaḥ*, *amútra* are derived, is most truly representative of the group of which *asau* is the nom. sg. masc. This is why the masc. plur. *amī* in Pali is replaced by *amū*, which is at first a fem. pl. and in the singular the nom. masc. *amu* takes its place beside masc. fem. *asu*, which has assumed the characteristic vowel, an essential step to avoid separation by phonetic action from its companion forms, since *asau > *aso* was naturally grouped with *so*, *eso (sa, eṣa)*. The same vowel is transferred to the neuter: *aduṃ* for **ado*, Skt. *adaḥ*. The unifying process is continued in Prakrit: Masc. fem. sg. *amū*, neut. *amuṃ*, whence gen. *amuṇo* modelled on the *-u* nouns, as well as *amussa*
p. 148 *(amuṣya)*. Indeed, the forms of this pronoun are rare in Prakrit and there are none in Asokan. It will be seen, however, that perhaps some traces of it remain in Kashmiri.

The *a*- stem is no longer represented in the near demonstratives, except in certain enclitics and this only by implication: Pkt. gen. sg. *assa, ssa*, pl. *saṃ*. The masc. sg. subject form *ayaṃ* is used in Asokan as a feminine at Girnar and in Pali and Arda Māgadhī. *Iyaṃ*, on the contrary, is used (as in Old Persian) for the masculine in the eastern inscriptions of Aśoka. The nom. acc. neuter *idaṃ* has to meet the competition of *imaṃ* (cf. Av. *imaṯ*), which, as would happen to an ordinary adjective, merges with the masc. fem. acc. *(imam, imām)*. This is the starting-point of the generalisation of the thematic type: gen. sg. masc. neut. *imassa*, fem. *imāya*, As. E. *imāye;* masc. pl. *imesaṃ*, instr. *imehi* etc., whence finally Pkt. nom. sg. masc. *imo*, fem. *imā, imiā*.

The direct case of the Sanskrit neuter interrogative *kim* is sharply opposed to *ka-*, and this is proved by the eastern Asokan formation *kiṃchi* based on *kaścit*>**kacchi*, cf. As. Kal. masc. *kecha (kaśca)*. The stem was extended to the oblique cases: Pa. gen. *kissa* beside *kassa*, loc. *kismiṃ* opposed to the ablative used as an adverb *kasmā* why? As. *kina(s)su* equivalent to Pa. *kenassu* and Pkt. *kiṇā vi(kenāpi)* must be explained in this way and not by reference to Indo-iranian, cf. Gath. *činā*. There has been an obvious attempt to frame a pronominal substantive "what?", distinct from the full declension with genders. Thus we find later Hin. *kyā*, Guj. *kyũ* obtained from an enlargement of *ki-*, opposed to Hin. *kaun*, Mar. Guj. *koṇ* obtained from an enlarged *ka-*, Apa. *kavaṇa* (see p. 202).

Prakrit, indeed, uses *kīsa* in all dialects in the sense of "why" and even "what" taken from expressions such as Pa. *kissa hetu*, Mg. *kīśa kālaṇādo* because of what?.

The characteristic vowel tends to pass on into the demonstrative pronouns As. *eti(s)sa* beside *eta(s)sa* of that, *etina* beside *etena* because of that, and consequently *etiya a(ṭ)ṭhāya* for this purpose, *iminā* beside *imena* by this means, (more) than that. Thence to Mysore *iminā kālena* and Pa. *iminā* in the masculine, supported by *amunā;* cf. Mvu. *ekinā* masc. and fem. At Shahbazgarhi we find *imisa (imissa)* not only with masc. *athrasa*, but also with the fem. *dhraṃmanuśastiye* (therefore to be read here *imissā*). Pali also utilises *-iss-* for the feminines: gen. sg. *(e)lissā, imissā* and likewise *ekissā, aññissā*, loc. *tissaṃ, imissaṃ* etc. (*yassaṃ* alone survives because of the inconvenience of **yi-*). Herein we find the starting-point of the new feminine oblique stems *kī-*, *jī-*, *tī-* in Prakrit.

In conclusion, the *ka-* stem, like *ima-*, the relative *ya-*, Pkt. *ja-* and the demonstratives or anaphoretics *ta-, eta-*, Pkt. *ea-, tya-*

(rare) and lastly *na-* (an enclitic derived from *ena-* in accordance with the formula *ta-: eta-*) all tend to have their inflexions regularised on the model of the nouns, but without affecting the unity of the forms in the direct cases (*te, ime, amū* etc., see p. 133). So we have the nom. acc. neuter *yaṃ, etaṃ (yad, etad)*, As. dat. masc. *etāya*, fem, *etāye*, Pa. loc. fem. *tāyaṃ* beside *tassaṃ (tasyaṃ)*, Pa., As. *yesaṃ*, but As. E. *etānaṃ* beside Shah. *etesaṃ*. In Pali a less successful compromise has been attempted: *etesānaṃ, yesānaṃ*. Prakrit makes a general oblique of the feminines *tāe, tīe* on the analogy of *mālāe, devīe*. On Jaina prakrit gen. pl. masc. *tesiṃ*, fem. *tāsiṃ*, see p. 144.

It is obvious that the very abundance of forms arises from attempts at normalisation; and in spite of the freedom of formation which is natural in pronouns, their number does not increase. Apabhraṃśa alone introduces new forms, which are, however, obscure: *āa-, ehu*, nom. pl. *oi* (harking back to *adu-, amu-*, or to Indo-iranian *ava-*.

THE NOUN IN NEO-INDIAN

The categories of gender, number and case

So far then as forms were concerned, the old declensions pursued a course of reduction and regularisation; but the way in which these forms were used remained almost entirely the same and fundamentally there is only one system of declension, inherited from Indo-iranian, from the earliest Sanskrit until the Middle Indian period. When the collapse of the formal system, initiated by phonetic evolution, made its further operation impracticable, then and then only did a new system, now characteristic of the modern languages, make its appearance.

Gender

The distinction of three genders persists throughout Sanskrit and Middle Indian in nouns and non-personal pronouns (a solitary example is the feminine personal pronoun in the VS *yuṣmāḥ* and in Neo-indian the Singhalese fem. *lī* thine, with a masc. *tā*). The majority of modern languages have only two genders. The neuter persists only in the group, which includes Marathi and Gujarati and in another quarter the Himalayan Bhadrawahi (S. Varma, *Indian Linguistics*, III 2 ff.). In Ceylon there has been a fresh grouping based upon the distinction between the animate and inanimate. And finally the eastern group, Bengali, Assamese and Oriya have discarded all distinctions of gender from the very earliest texts.

The primitive distinction between animate and inanimate in Indo-european is no longer of importance in Sanskrit. There is, on the contrary, a constant morphological opposition of the masculines and neuters to the feminines, except in the direct cases. This is particularly evident in the nouns with vowel

stems, that is, those actual stems, which have survived in Middle
Indian.   Certain old suffixes, e. g. -a-, -tra- were capable of taking
two genders, according to whether the noun denoted an animate
being or an inanimate thing.   In this, no doubt, consists the
principle of hesitation between masculine and neuter found in
a great number of Sanskrit thematic stems; thus *nīḍaḥ* and *nīḍam;*
ākāśaḥ, ākāśam; pustakaḥ, pustakam; mastakaḥ, mastakam.   The
general trend is towards the neuter: Ved. *gṛháḥ*, Classical *gṛham*
and the Divyāvadāna has *mārga-, drava-, krodha-* neuter (it is true
that *trāṇa-* is there masculine).   To judge by the large number
of neuter formations in Tamil and Telugu loanwords (though we
must admit that their dates are uncertain), the feeling that the
neuter was the gender of things inanimate must have been more
widely spread than the classical texts disclose.   Thus Tamil has
sayamaram (svayaṃvaraḥ), sudēsam (svadeśaḥ), suruvam (sravaḥ)
and *sruvā, sandanam (syandanaḥ)* and even *maṟcam, maccam
(matsyaḥ)* fish; and from Prakrit *puyam (bhujaḥ)* arm, and indeed
kayam (gajaḥ) elephant (the examples are borrowed from
Anavaratavinayakam Pillai, *Sanskritic element...*, *Dravidic Studies*
III, Madras, 1919).

So far as the direct cases are concerned, hesitation is found
between forms of the plural at a very early date.   In one direction,
the archaic neuter ending in -*ā*, similar to the masculine ending,
persists in Pali and so can be occasionally used in apposition with
the masculine (with pronouns: *ye keci rūpā, sabbe rūpā*).   But
otherwise Middle Indian preserves the neuter.

In the eastern inscriptions of Aśoka, the nom. sg. of the masc.
neut. ends in -*e*.   But there is a neuter, for the nom. pl. of *ka(y)yāne*
is *ka(y)yānāni* (Skt. *kalyāṇam*).   It is true that in Asokan the
endings in -*āni*, -*īni* are frequently used for the accusative
masculine, as Lüders has recognised (*Sitz. Berlin*, 1913, p. 993;
F. W. Thomas, *JRAS*, 1925, p. 104; cf. *appheni* us, p. 147).   This
fluctuation must have continued for a long time.   Or, more
precisely, the ending -*āni* or its derivatives must have survived
long enough to enable it to be used, at last, as a sign of the feminine
plural.   As for the singular of the direct case, it has been, as we
have seen, reduced to one level by the phonetic processes of Middle
Indian.

The only remains of the old neuter forms are some numerals.
Pali generalises *duve*, which still persists in many places.   Prakrit
generalises *doṇṇi, tiṇṇi* (the former is formed on the latter, which
has emerged indirectly from the word for "four", see Bartholomae,
Sitzb. Heidelberg, 1916, p. 6) *cattāri*, Apa. *cāri*, whence come

cār almost everywhere, *tīn* except in Gujarati, Sindhi, Lahnda and Dardic and *don* only in Marathi and Konkani.

For the modern creations of pronouns meaning "what, something" see p. 202.

p. 152   The neuter has, therefore, disappeared almost everywhere as a true grammatical gender, but we find several traces of a tendency to distinguish animate nouns from inanimate. To begin with syntax: the use of the oblique case for the direct object in animate nouns in Romany, the use of a postposition with the same function in many languages (Hin. *ko*, Beng. *ke*, Mar. *lā* etc (see p. 188), the choice of postpositions in Kashmiri according to whether the noun is animate, personal or inanimate; and the general use of a postposition, comparable to Spanish *a*, as a substitute for the direct object in animate nouns.

In morphology too, we may first point to Singhalese, for which a new system of declension has been constructed: the masculines and feminines have a direct case with two numbers and an oblique to which postpositions are affixed, while the inanimate nouns have in addition an instrumental and a locative, but only in the singular. Here we catch a glimpse of the effect of some non-Aryan substratum, which it is impossible to specify.

In Nepali there has also been a disappearance of grammatical gender. There remain only feminine forms denoting females, as *nāri*; a development which, in the main, belongs to etymology and vocabulary, not to grammar. We see here too traces of an indigenous language, which has been unlearnt quite recently. No doubt this too is due to the effect of some substratum, which is at the bottom of the total loss of genders in the eastern group. For there is no longer any trace of them except in certain learned formations and the occasional use of them in old Bengali texts is too rare to be significant. For the reduction of the feminine in pronouns, see below.

The system being thus established, it only remains to point out that the gender of individual words was not always transmitted without alteration. In Pali we find *kucchi* lap, *sāli* rice, *dhātu* element, relic, originally masculine, but capable of taking feminine endings. And indeed the long and short -*i*- and -*u*- stems were drawn closer to each other. And so we get *agniḥ* masc.: Mar. Guj. Hin. *āg*, Sind. *āgⁱ*, Rom. *yag*, Panj. Lahn. *agg* feminine.

kūkṣiḥ masc. Kash. *kŏch*, Panj. *kukkh*, *kucch*, Sind. *kukhⁱ*, Guj. *kukh*, Mar. *kūs* feminine.

vāyuḥ masc. Hin. *vāo*, Sind. *vāu*, Panj. Hin. *vā* feminine; Mar. *vāv*, Guj. *vā* masc. may come from *vāta-*.

ikṣuḥ masc. Hin. *ūkh*, *īkh* feminine; but Mar. *ūs*, Panj. *ikkh* masc.

bāhuḥ masc. (but Pa. *bāhā* f.);   Hin. Panj. Lahn. *bãh*, Sind. *b̲āhᵃ* feminine; derivatives Mar. *bāhī*, Guj. *bāhī* feminine.

akṣi neut. Guj. Hind. *ãkh*, Panj. *akkh*, Sind. *akhⁱ* feminine. with enlargement:

dadhi neut. Guj. Mar. *dahĩ* neuter; Hin. *dahī* masc.; but Panj. *dahĩ*, Lahn. *dahī*, Sind. *ḍahī* feminine.

vastu neut. Sind. *vathᵘ* and even the tatsama Hin. Guj. *vastu* feminine.

In the same way *vartma* neut. which became *vaṭṭā* in Prakrit is represented everywhere by a feminine, cf. p. 139.

Other variations exist especially in learned words.   There is no general rule: e.g. there was a feminine enlargement: Sind. *dehⁱ* from the Hin. Panj. feminine *deh* (masc. in Marathi).   In Hindi *soh (śapatha-)* is feminine (influenced by *bāt*, Skt. *vārtā* word?); but *tārā*, *deotā* may be masculine and *byakti* is so regularly.

There is no need to discuss here forms of feminine derivation. It will be sufficient to indicate the part played by suffixes derived from Sanskrit *-inī* and in particular *-ikā*, which is normally used as the feminine of *-ako*.

A remarkable use of gender in derived nouns deserves mention. In Hindi we have opposite to Skt. *bhāṇḍam* both *haṇḍā* masc. and *haṇḍī* fem.; the former denotes a large saucepan, the latter a small one.   Against Skt. *rasmiḥ* masc. Hin. *rassā* means "cable", *rassī* string.   From the formal point of view the opposition is the same as that of *ghoṛā* horse, *ghoṛī* mare; but the masculine derivative denotes what is large or coarse and the feminine what is small or fine.   The same distinction is found in other languages: Guj. *ṭekro* masc. hill, *ṭekrī* eminence; *gāḍū* cart, *gāḍī* carriage; Sind. *kātᵘ* masc. large knife, *kātⁱ* fem. small knife; *māṭo* masc. jar, *māṭī* fem. little pot.   The exact extension of this idiom and, in particular, its history, although of interest from the point of view of general linguistics, are unknown.   Inversely, note *sarasi* f. augmented from *saras*, n. lake in the Deccan acc. to Patanjali, I, p. 73, l. 5.

NUMBER

Sanskrit, like Indo-iranian and Indo-european, distinguished three numbers; singular, dual and plural.   As in the other Indo-

european languages, the dual has entirely disappeared, the disappearance dating from Middle Indian. In Vedic, and the use is more wide-spread than in Indo-european, the dual is the
normal means of expressing the idea of a couple, whether natural or conventional (*akṣī* the eyes, Gk. *ósse;* and also *bhrúvau* the eyebrows, cf. Gk. *ophrúes;* double objects like *dvárau* beside *dvárah*, Gk. *thúrai*) or a couple already known from the context or associated by tradition (*hárī* the two horses of Indra). The idea of 'pair' overrides the idea of 'number' and this is shown in one way by the existence of archaic formulas in which the name of a being in the dual implies the name of another being, who is the constant companion of the former (*mitrá* Mitra and Varuṇa, *áhanī* day and night, Class. Skt. *pitárau* parents, *bhrátarau* brother and sister) and in another by the addition of *dváu* when there is a question of specifying the number in connexion with some other, whether it is actually expressed or not (*úbhau* both, implies the notion of "together").

We catch a glimpse of fluctuations in the less archaic parts of the Ṛgveda (Meillet, *BSL.* XXI, p. 59). If the examples proved anything, they would signify the beginning of decadence, and in that case the oldest classical Sanskrit would be completely masking the actual evolution, for in it, whenever there is a question of two things, the dual is always used, whether *dvau* is added or not: RV Book X *gharmá* two saucepans, MBh *aṅgulyau* two fingers. Occasionally, indeed, Buddhistic Sanskrit, especially in the pronouns, uses plural for dual. This is a clear indication of what is to follow and in fact there are only very rare traces of the dual in the earliest stage of Middle Indian (according to H. Smith: Jāt. V. 375 *vaṃ* you two; some dvandvas of proper nouns, see Saddanīti, p. 634 n. 19, and a Prakrit example in Bhāsa according to Garbe, *Festschrift Jacobi*, p. 128). The words for "two, both", Pa. *duve*, *ubho* Pkt. *do*, *be* continue old forms, but do not represent a dual any more than Lat. *duo*, or Eng. *two*. Pkt. *doṇṇi;* and already in Pali, the oblique forms *duvinnaṃ* etc., modelled on the forms for "four" and "three" are plural.

The modern languages have only the singular and plural. Furthermore Middle Indian phonetics are often the cause of the direct case of the plural becoming indistinguishable from the singular, that is, in non-thematic nouns ending in a vowel. This deficiency was remedied in certain languages like Romany by the application of the ending of the enlarged nouns to the plural of the unenlarged nouns. In other languages another word is added,

either in apposition or as a determinant, giving the idea of a group
such as "all, people, collection", etc.   This device is especially
applicable to animate nouns being perhaps an extension of a
p. 155 "primitive" idea of considering the inanimate as one whole and
not split up into identical units.   Caldwell[3], p. 232, remarks that
in Dravidian the plural suffixes are applied only to nouns denoting
rational beings, and in Santali according to Bodding, *Materials*...,
II, p. 40, the signs of number are essentially determinants.
Tibetan, on the contrary has no morpheme for the plural, but
employs "many" and similar words.

There can be seen also a morphological reason for this distinction.
So long as the neuter persisted, there was a separate form for the
plural, while the singular had none.   This is still the case in
Marathi: masc. sg. and pl. *cor* thief, thieves, but neut. *sūt* thread,
sutē threads *(sūlrāṇi)*.   But this can only have been a contributory
factor, for the movement is of much earlier date: Patañjali
kumbhakāra-kula- the potters, rather than, the corporation of
potters; MBh. *bandhu-jana-* the relatives, Pa. *mātu-gāma* the
women.

Hindi says *ham log* we (plural of *ham* we, equivalent to, I)
sāhib log the gentlemen; *log* (Skt. *loka-*) is plural.   In Awadhi,
kahār logan ma among the Kahar, *hame pane* we people.   Bengali
had recourse to many different devices: Old Bengali *loa, jana,*
saela (sakala); Middle Beng. *sabh* all; *gaṇa, kula* becoming *gulā,*
ādi, ādika becoming *di, dig* in the XVth cent., *sakala* all, *jata* how
many, originally exclamatory; lastly, an adjectival suffix made
from *-kara-* or *-kera-* and at first accompanied by *sab: āmrā sab*
all of us, *bāmunerā sab* all the Brahmans; later the word *sab* has
been omitted and the mere suffix serves as the sign of the plural.
This occurs from the XIVth century in pronouns and a century
later in nouns: *chelerā* children, *kāmārerā* blacksmiths.   It is now
the most usual form.   In certain dialects we meet with adjectives
in *-igā*.   In Eastern Bengali, *mīna, mān* correspond to Chattisgarhi
manā, Oriya *māna* (XVth cent. *māṇa*), which are forms of Skt.
mānava- man.   Assamese has *bora (bahutara?)*.   Yet other
forms, obscure in origin, might be cited from the eastern dialects.

In the North-west we find Kati *kile* (obl. *kilõ;* obviously a
plural), Waig. *kele*, Prasun *kili*, Pashai *kuli;* Gaw. *gila*.   These
are borrowings from Iranian-Afghan *kəlai* village.   Gawarbati
has also *nam* name, cf. Lat. *nomen*.

Singhalese, on the contrary, has a suffix for inanimate nouns:
nuvaraval towns, declined as a singular.   The origin of the word
val is obscure.   There are also, added to certain nouns of relation-

ship or to titles, -*varu* (Skt. -*vara*- honorific) and -*lā* (*ayya-lā*, *ayya-varu* elder brother). These are the second members of compounds, one with a collective and the other with an honorific meaning.

As for the plural, it is right to emphasize the importance possessed by the honorific plural in India, cf. p. 298. It is especially conspicuous in the conjugation of the verb: Hin. *rājā kahte haĩ*, the king says. But one can also say *rājā ke beṭe yahã haĩ* thee King's sons are here, meaning "the King's son". This mixture of the singular and plural has affected the declension and particularly the pronominal declension.

CASE

The few confusions of gender which have been noticed and even the loss of the dual have not made a great transformation in the use of the grammatical categories of gender and number. The alterations effected in inflexion have had a wider range. For concurrently with the changes and remodellings which have already been described, the very utilisation of these forms underwent changes which resulted in a declension descended directly from the old declension, but very different in appearance from it.
Sanskrit preserves the distinction of the eight cases inherited from Indo-iranian and Indo-european. The distribution of forms was not symmetrical, for instance, there were forms in the plural and especially in the dual of nouns and pronouns, which were common to several cases. But these confusions, any more than those produced in Middle Indian by phonetic changes, did not in themselves endanger the system. The principle of the system was, indeed, maintained by the whole group of forms associated in identical constructions, and the language was always ready to replace casualties, when only the form of words was affected. Thus Sanskrit and Middle Indian extended the use of the adverbial suffix -*taḥ* so as to procure a progressively single exponent of the ablative. In the same way in Avestan, while the final -*t* of the masc. neut. thematic stems still existed, it became extended to -*ā* stems and non-thematic stems in order to make a clear distinction between the ablative and genitive.

The fundamental difficulty of the Sanskrit system is caused by the multiplicity of syntactical equivalents. Thus the person to whom something is given can be expressed by the genitive, dative

or locative; the person spoken to, by the accusative, dative, locative or genitive; the object, by the accusative, dative or locative; the place, by the instrumental or the locative; and similarly circumatance and time, by the same cases and also by the accusative. The instrumental and the ablative express at once cause, separation and comparison and the genitive and instrumental are equivalent to one another when used with gerundives, words expressing resemblance, verbs meaning "to fill", etc. These confusions are multiplied in the texts of which the language was inadequately controlled, and are both the indication and the cause of the disorganisation of the system. In the same way in the verb, when forms originally distinct in meaning were used for the same purpose e.g. to express the past, they all disappeared.

The old system of cases was apparently preserved in Sanskrit. But traces of a tendency towards standardisation are to be seen in it. Thus the accusative tends to become generalised in complements of the verb and the instrumental is established as complementary to the passive, in adverbial expressions or for technical uses.

A fact no less important is the disappearance of the dative. Destination and possession or attribution are, in fact, allied ideas and were expressed in a similar way in the enclitic pronouns since the prehistoric period: Skt. *me*, *te* like O. Pers. *maiy*, *taiy*. From the time of the Ṛgveda, the genitive can be equivalent to other cases and particularly to the dative. In the Brāhmaṇas the two cases are found applied side by side to complements of nouns or accompanying the verb "to give" (Ait. Br. *tasya ha śatam dattvā* giving a hundred to him). Subsequently this latter use becomes regular. Conversely, in the same texts, the dative singular of the feminines in -*ā* and -*ī* replaces the genitive (the same thing occurs in the Avesta). This use disappears in Sanskrit, but is continued in Middle Indian, where, moreover, the form is put on the same level as the other genitives.

The decay of the dative was almost complete, when Middle Indian came into being. For the dative plural the inscriptions of Aśoka have an ending -*ehi*, which, when used with the verb "to give" was particularly ambiguous (see S. Majumdar, *Asutosh Memorial*, p. 31), since it also had the force of an instrumental or ablative. Pali, indeed, supplies us with no instances of the dative, except in the singular of thematic stems and even then exclusively in the sense of destination (*saggāya gacchati* he goes to heaven)

and, above all, intention. It has a force, which is often close to that of the Pa., As. infinitive datives in -*tave*: *apunabbhavāya* not to be reborn, *dassanāya* in order to see (the Prakrit infinitives in -*ttae* perhaps carry on this dative with the old infinitive in -*tave*).

p. 158   Another case, the locative, has inherited a large share of the functions of the dative. The name is, in fact, a misnomer, for the case expresses various and often vague relations, which may be lumped under the head of "participation" in the sense given to this word by the sociologists. Pāṇini uses the term *adhikaraṇam* 'reference' or 'relation'. The locative is not, as in Latin for example, opposed to the rest of the declension by its peculiarly concrete character. This want of precision in the relation expressed by the locative has made it particularly suitable for use in absolute constructions, for which the genitive is rarely used in Sanskrit and other cases almost never. Position or attribution, direction (for in Sanskrit the locative answers the question *quo*? whither? as well as the question *ubi*? where?) and destination are allied ideas. Thus Classical Sanskrit can express destination and attribution by the locative. In Buddhistic Sanskrit the complement of the verb 'to say' is freely put in the locative. In Pali the locative can replace the instrumental, ablative and even the accusative. V. Henry calls it 'the case of all work' of the Pali declension.

Even when it was reduced by one case, the inflexional system of Middle Indian still contained a large number of equivalent forms. The language made use of a number of postpositions to determine shades of meaning, which could not be adequately expressed by the form of the word. The first were derived from the old preverbs. These are short adverbs like *ánu*, *ábhi*, *ā́*, which were independent words in Primitive Indian as they were in Indo-iranian and Indo-european. At a very early date there was a tendency to place the preverb immediately before verbs and before or after nouns: RV *pathyā̀ ánu* along the roads, *ánu dyū́n* every day. The order takes time to establish. We find *bhrā́tṛbhiḥ saha* and *saha bhrā́tṛbhiḥ* in the Mahābhārata, but in the Brāhmaṇas there are already two postpositions to one preposition, and the tendency to use postpositions is generalised in Classical Sanskrit, in such a way that the order of the phrase conforms with the normal order followed by stems and their inflexions, and by the members of compound words or in the grouping of verb and complement.

However, it cannot be said that a system of postpositions with regular government was set up in Sanskrit or even in Middle

Indian.   On the whole, it is the case of the noun, which continues
solely to determine its connexion with the verb, and the particles,
which are included in the phrase without affecting it, accompany
the most various cases.   In the Ṛgveda *ánu* according to, goes
most frequently with the accusative, but it may accompany a
genitive, ablative or instrumental.   The Classical grammarians
still authorise the three first of these constructions.   Even in
Pali, where it is, moreover, very rare, *anu* tends to accompany
locatives.   Skt. *vinā* 'without', which appears only in the Śat. Br.
with the accusative, is in Pāṇini accompanied by the ablative,
an obvious use, and also by the instrumental because of the
implicit idea of association.   So also in Pali: *mātāpituhi vinā*
without parents, *vinā māṃsena* without meat.   It is noticeable
that a new 'preposition' with a definitely single meaning should
remain in unsettled relationship with a single case.

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The truth is that the whole system is in a decline and later
history shows that the old preverbs have only persisted to a certain
extent when associated with verbs.   Preverbs are shown by
etymology to exist at the beginning of many modern verbs
commencing with *o-* or *u-* *(apa-, ava-, ud-)*, or by *p-* *(pra-, prati-)*,
v-/b-(vi-), *sam-*.   However, if the grouping together of certain
verbs of similar meaning, whether supplied or not with these
preverbs, makes their relationship clearer, the preverb no longer
functions as such.   In nouns there is a still smaller residue.   The
failure to standardise the use of the old preverbs in the written
languages is an indication of the abandonment of them in current
usage.

In fact, a method had to be evolved for endowing the nouns in a
sentence with a substitute for case and this was very soon done by
grouping   with   them   substantives   which   were   themselves
inflected.   From the time of the Ṛgveda, beside *antáḥ* between
(Av. *antarə*, Lat. *inter*), we find *antará*, which is the instrumental
of *ántara-* (Av. *antarō*) and has therefore originally the force of
"in the inner part".   But *antará* goes with the accusative like
antár (which also admits the locative) and accordingly cannot be
said to govern the substantive.   But in RV III 8, 2 *sámiddhasya
śráyamāṇaḥ purástād* installed in front of the lighted (fire), *purastād*
no longer accompanies an ablative or an accusative like *puráḥ*
(in the Brāhmaṇas *upáriṣṭād* accompanies the accusative like
upári), it is a noun which governs a noun.   Beside *mádhye samudré*,
cf. Pa. *majjhe samudde* in the ocean in the middle, we read for
example *mádhye árṇasaḥ* in the middle of the surge.   We find

later ŚBr *ātmana upari* upon oneself. The Iranian and Vedic construction of *upari* is with the accusative and instrumental, the new construction is that of a normal locative. This process is widely extended in Sanskrit and Middle Indian. Thus for example *antike, samīpe, pṛṣṭhe, arthe, arthāya* (Pa. *atthāya, attham*), *hetoḥ* (Pa. *hetu*), *nimittam, nimittena, vaśād, vaśena* etc., are formed. It is this extension of noun groups, which explains the absence of the prepositional system.

p. 160   To these forms must be added certain participles used in compounds, such as *-sahita-* accompanied, provided with, replacing *saha* with, *āśrita-* (supported) on, which are sometimes capable of becoming substantives in the same way as *madhye* and of being used in compounds or constructed with a genitive. Thus we pass from *gavākṣagatā tiṣṭhati* she went, she is at the window, *gurugatām vidyām* knowledge gone to the master, of the master, to *gatam* about, *gate* in consideration of.

The most interesting of these adjectives with worn-out meanings is *kṛta-* made. In Pali we find *aṭṭhīnam katam nagaram* city made of bones, in which the expected instrumental is significantly wanting. This is because the construction reflects the use of *kṛta-* expressing simple dependence, the starting-point of which is in Skt. MBh. *mama kṛte, matkṛte*, Pa. *mamkate* for me, *mamsassa kate* for the meat; Skt. *arthakṛte* for gain, *amīṣām prāṇānām kṛte* for these beings. The gerundive (adjective of obligation) of the same verb provided Prakrit with *keraa- (*keraka-)*: Mg. in Śak. *tava kelake mama yīvide* my life belongs to thee, Mṛch. *Cāludattāha kelake*, Saur. *ajjassa kerao* beside *dāraa-keriae* mark the entry of this vulgarism into literature.

The present participle of the verb "to be" provided an adjective which was similarly employed. In *amhasa(n)taka* our, *pitusa(n)*, *taka* the father's, in the Nasik inscriptions we still have to do with stems and not with declined forms. But the Divyāvadāna, beside *vihārasvāmi-santakam śraddhādeyam* (p. 464), also gives (p. 529) *devasya santakam bhaktam* and (p. 174) *bhaginyāḥ santikā preṣya-dārikā*.

Finally a few much used absolutives (gérondifs), following accusatives, become tantamount to postpositions. This use, which appears late in Sanskrit is common in Pali. *Ādāya* with the accusative originally means 'taking' but is simply equivalent to 'with'. In the same way *gahetvā* having taken; Skt. *uddiśya* and Pali *nissāya* supply the loss of *prati*; Pa. *upādāya* is equivalent to "according to", *āgamma* relatively to, thanks to; *ṭhapetvā* except. The process has continued, see below, p. 181, 256. New formations

of analogous groups are made at the present day, but Anglicisms may be suspected. They are expressions copied from *regarding*, *concerning*, etc., and not elements of a grammatical system.

The process most highly developed in Prakrit is one which concerns only nouns. Beside the construction with the genitive, compounds are frequently used, but do not predominate. We p. 161 find for example in Erzählungen in Mah.: 1.4 *bhikkh'aṭṭhā* and 1.21 *vah'aṭṭayāe* beside 34.4 *jass'aṭṭhāe*, 63.12 *mam'aṭṭhāe* where compounds had become out of the question; 10.37 *Bambhadaṭṭ-antiyaṃ*, but 33.3 *mahāvīrassa antie*, 8.25 *niya-bhaginīnaṃ antie*. Compounds including words voided of their meaning like *kae(kṛte)* or *kajje (kārye)* because of, for, are no longer possible: 29.35 *bhogāṇa kajje*, 50.34 *tassa ya kajje*, 78.8 *tumhāṇa kajjeṇa*; 6.34 *mukkha-baḍuyassa kae*. We find *paura-majjhi* once in the XIth century Bhavisattakaha. The ordinary formula is the genitive: *dujjaṇahā majjhi, sajjanahā majjhi, nāyarahā majjhi*. Therein lies the process which explains the modern usages.

FORMATION OF NOUNS

If you except the learned words, especially those taken from Sanskrit and the Islamic languages (with frequent changes of meaning, which deserve investigation), the great bulk of modern words, which can be etymologically identified, are continuations of Sanskrit words. But from the time that the medial consonants became softened or assimilated, it was no longer possible to detect their formation. Since Prakrit there is no longer anything left of the suffix -*tra*- in Hin. *pāt* leaf *(pattram)* nor of the suffix -*snā* in Nep. *jun* moon *(jyotsnā)*; all recollection of the suffixal value of the final consonants in Hin. *cūn* powder *(cūrṇa-)* or *cauk* square *(catuṣka-)* is lost and in Bengali, which has lost its genders, there is nothing to remind one that *bel* goes back sometimes to *bilva-* and sometimes to *vallī*.

Accordingly in so far as the modern languages have recourse to the same processes of formation as Sanskrit, the methods of dealing with the material for the most part differ, and when they do coincide, the values are no longer the same.

For the same reason many of the old compounds are not identifiable: Hin. *mausī, māsī*, Pkt. *māussiā* are **mātṛsvasṛkā* only to the etymologist. Even recent formations like -*āni* in Nep. *caulāni* rice water or -*el* in *phulel* essence of flowers, only rhyme with *pānī* water, *tel* oil *(pānīyam, tailam)*, which entered into the

compounding of their models. Who would recognise to-day in the final consonant of Hin. Mar. *divaṭ* torch *(*dīpavarti-)* anything but a suffix, or *pānīyam* in Mar. *vāṭoṇi* urine, wayside water *(*vartmapānīyam)*?

The making of compounds with two members, however, has remained an ordinary practice, so that it is hardly possible to determine, whether for example Hin. *caukonā* quadrangular, *caumās* earth cultivated during the rains, *pachtāo* remorse, are modern formations or descendants of Skt. *catuṣkoṇa-, caturmā-s(y)a-, paścāttāpa-*. It is not always possible to analyse the members of a compound in the non-literary languages, but it is easy to recognise at least some of them; Kati *indron* rainbow *(indra-dhanuṣ-)*, Ashk. *Imrā* name of a god *(yama-rājā)* must be quite old; but Ashkun also shows *apala-gōn* *bad smell, smelly, anala-waṭ* fire-stone, *gāṇi-aṅur* counting finger, thumb, etc. In Shina *šudār* boy, *šuṇmamuyo* mouse, the formation is confirmed by comparison with the pl. *dāṛ* boys, and the Skt. *mūṣa-*. In a language like Marathi the grammarians find no difficulty in recovering the principal Sanskrit formations (by mixing together, significantly, Sanskrit with modern words). Tatpuruṣa: *rāj-vāḍā* royal palace, *poḷ-pāṭ* pastry-board, *toṇḍ-pāṭh* (ready) to recite with the mouth, learnt by heart; *tāmbaḍ-mātī*, copper earth, ochre, *corgāṭh* secret knot. Bahuvrīhi: apparently less numerous (they are enlarged, as from Skt. -*ka-*): *ti-majlā* at three stories, *vākaḍnākyā, -siṅgī* with a crooked nose, with bent horn. Coordinative: Mar. *āībāp*, cf. Hin. *mābāp* parents.

A type of formation of which there only exist traces in Sanskrit is the reduplication of words, the reduplicated form, moreover, being liable to arbitrary alteration. Sanskrit expresses renewal or distribution by repetition: substantives: *divédive* every day (note the single accent) *sádaḥ sadaḥ* each on a seat, cf. Pa. *pabbaṃ pabbaṃ* knot by knot, Pkt. *kesākesi* hair by hair. But in Neo-indian we have something more, that is to say, an emphatic form which has no historic link with the Indo-european and Sanskrit intensives, and is capable of producing nouns and verbs. It is foreshadowed in Classical Sanskrit and Middle Indian by a few words expressing noises: Skt. Patañjali *jhalajjhala* dripping, Pa. *ghurughuru* grumbling, *ghurughurāyati* grumbles. Examples are numerous in even the most cultivated modern languages: Beng. *kaṭkaṭā* shooting pain, *ṭhakṭhakā* noise of impact, *sapsapā* feeling of uncomfortable wetness, *pākopāko* (quite ripe) nearly ripe; Mar. *kaḍakḍī* stiffness, cracklings, and the adverb *uṭhāuṭhī* (rising immediately) at once.

Like the Hin. type *pānivāni* water, is the Panj. type *pāṇībāṇī; pāṇīśāṇī*. But there is a further development. A variation is sought by the use of synonyms: Dogri (a Panjabi dialect) *rukkha-sukha* dry, *lāl-surkh* red, *akhnā-bekhnā* sayings, *kacho-kolẽ* near (according to Gauri Shankar, Indian Linguistics I, II-IV, p. 81). But in this particular case one of the elements is liable to distortion: the second term in Greek Romany *sasto-vesto* unlike the French *sain et sauf*, and the English *safe and sound*, to which it is equivalent, is difficult to explain. But indeed rhythm is at bottom the main feature of these groups and it is sufficient that one element only should be clear: the first in Mar. *udhaḷmāḍhaḷ* prodigality, *āḷāṭoḷā* comprehension; the second in Mar. *ārpār* from end to end, *aḍośī paḍośī* neighbourhood, *iḍāpiḍā* troubles. It may be that Hin. *upās-ānās* fast consists perhaps of Skt. *upavāsa-* joined to *anāśa-*; and Hin. *āspās* all round, of Skt. *aśra-* edge, and *pārśva-* side, but it is difficult to make sure whether these groups have served as a model to those previously mentioned or whether they are derived from them, the coincidences in etymology being due to chance. Analogous formations are found in Armenian, Turkish, Persian and elsewhere. In India they are present also in the non-Indo-aryan languages.

It is not easy to come to conclusions about derivation in the languages which have no literature and, in those which have, no research has been made into their history, so that one is in danger of failing to disentangle the borrowings of one language from another. Hindi, in particular, has probably been a fertile source of loan-words to its neighbours.

The stock of suffixes, which have come from Sanskrit, is meagre. We may notice the following. The most popular infinitive comes from the Sanskrit nouns of action in *-anam:* Singh. *-ṇ^u*, Kash. *-un*, Sind. *-aṇ^u*, Lahn. *-uṇ*, Bund. *-an* and with an enlargement Hin. *-nā*, Raj. *-ṇo*, Braj *-naū*, Panj. *-ṇā-*, *nā*, Mar. *-ṇẽ*. From the causative type the Bengali causative nouns *cālāna* despatch, *sonāna* causing to hear, are derived, and also participles (in a passive sense): *dekhāna* shown. Guj. *-vū*, Raj. *-bo* like Beng. *-be* are based on *-tavya-*, the participle of necessity, which retains its meaning in Mar. *-āvā* and in certain uses of the Gujarati infinitive. It provides a future for Bengali.

The present and past participles come regularly from Pkt. *-anta-* and *-i(t)a-*, the latter being always enlarged.

Ordinals: Mar. Hin. *pãcvā (pañcama-)* etc.; similarly Sindhi *-õ;* Torw. *coṭom* 4th, by analogy with *painǰəm* etc. The Sanskrit

-ma is used without alteration in Gujarati and Bengali. In Singhalese, Shina and Romany there are new formations.

The formation of the feminine. The most popular suffix comes from *-ikā* (see below, p. 164); *-inī* is common: Hin. *dhobin*, Panj. *dhoban* washer-woman, Mar. *vāghīṇ* tigress, O. Beng. *curaṇī* woman thief, Eur. Rom. *khabinī (garbhiṇï)* pregnant, *manušnī* woman.

Abstract nouns: Skt. *-tvam, -tvanam;* Hin. Panj. *buṛhāpā*, Hin. *buṛhāpan*, Sind. *buḍhāpaṇ*ᵘ, *buḍhāpo* Guj. *buḍhāpo* old age, Panj. *laṛakpuṇā* childhood, Mar. *cǎglepaṇ, cǎgulpaṇ* goodness, Kash. *běnüñüpôn*ᵘ or *-tôn*ᵘ sisterly attitude, Rom. *manušipe* humanity, *coripen* theft, Welsh Romany *bignipen* beginning, from Eng. *begin;* and derivative adjectives in Bengali *cǎdpānā* lunary, *lālpānā* reddish.

A certain number of suffixes arc really substantives used at first as the second terms of compounds: *-rūpa-, -(d)hara-, -kara-, -kāra-, -pāla-;* and from the lexicon of Islam, *-gar* etc.

The most interesting elements are suffixes, which have no special meaning. They take an important place in the formation of modern nouns. The suffix, which is without doubt the most important for modern etymology, is the least significant of all, Skt. *-ka-*, Pkt. *-(y)a-* preceded by *-ǎ-, -ǐ-, -ǔ-* see page 111; and it was just this lack of meaning which led to its extended use as an enlargement. It has conduced to the preservation of the characteristic vowel of a large number of words, which otherwise must have been shed: for example Skt. *aśru*, Pkt. *amsu* remain in Pashai *ōostr*, but appear everywhere else in the derived form: Hin. *āsū*, Panj. *añjhū*, Nep. *āsu* (Sgh. *äsa* is formed on another principle); *akṣi*, a neuter changed to feminine because of its final vowel, remains *ǎkh* in Hindi, but terminates in a long vowel in Shina *achī*; Skt. *mālin-*, in the form *mālika-*, Hin. *mālī* keeps the suffix, which distinguishes it from *mālā*, Hin. *māl* (and is conveniently classified with the Islamic suffix of *cīnī* Chinese, imported sugar). The chief concern of this enlargement is to allow mutually opposed classes of genders to be established for adjectives and nouns. The feminine in this case is not *-akā* or *-akī*, but *-ikā;* hence for example Maith. *bar: barī* great. But generally the masculine is also enlarged: Hin. *barā, barī: ghoṛā, ghoṛī* horse, mare, Shin. *šēu, šēi (śveta-)* white, *mālu, māli (mahallaka-)* father, mother: Ashk. *gaḍawä, -wī* sheep, ram, ewe; *kǎra, kǎri* blind; Nuri *cona, coni* boy, girl; *kuštola, -ti* little.

Moreover, the enlargement can be itself enlarged: Beng. *kāliā*

black (type *kālakako), Maith. *gharaiyā* domestic, Hin. *rakhvaiyā* watchman; but this is recent. The Beng. *māṭiā* presupposes *māṭī (mṛttikā)* just as Chatt. *machariyā* fish, presupposes *machrī*. In Maithili there is thus quite a series of forms: *ghoṛ, ghorā* both meaning "horse", *ghoṛ*wā* definite "the horse" and *ghoṛauwā* the vulgar form. This shows that the system remains alive and that perhaps the use of enlarged forms is of recent date.

As regards adjectives the scheme differs in one respect: *choṭ* little, *choṭā, choṭakkā, choṭkawā*. There is actually in Prakrit a suffix with geminated *k: rāikka- (rājakīya-); goṇikka-, mahisikka-* herd of oxen, of buffaloes (but in the Middle Indian inscriptions, As. E. *-ikya-*, Barabar *devadāsikyī* are the sign rather of palatalised gutturals). At first it is an emphatic form: Mar. *thoḍkā* beside *thoḍā* little, *phusārkī* beside *phusārī* swelling, boasting. It occurs in the names of animals: Kal. *gardo-k* ass, *pachiek* bird. In Bengali it has become a common suffix: *car-ak* (pkt. *caḍh-*) hanging in the air (of a penitent), *phāṭ-ak* gap, gate, *baiṭhak* seat. Sanskrit suffixes are naturally mixed up with it: Hin. *pairāk (-āku-)* swimmer. The participles and infinitives in *-k* belonging to the Prasun, Kalasha, Khovar and Shina group are probably Iranianisms, cf. p. 283.

Sanskrit makes little use of the suffix *-la-(-ra-)* in the early period: *sthira-* firm, *anila-* wind, *bahula-* thick. This suffix becomes a mere enlargement as well as forming a diminutive (there are forms with long vowels as in the case of *-ka-: karmāra-* blacksmith, *vācāla-* talkative, *śītālu-* chilly). The use is extended in Middle Indian and is accompanied by gemination: Pa. *duṭṭhulla-* (*duṣṭa-* and *duṣṭhu-* unbecoming) wicked, *aṭṭhilla-* ox-bone for massage *(asthi)*, *mahalla(ka)-* old man (cf. As. *mahālaka-*). There are numerous examples in Prakrit, which have no particular meaning. The modern languages use them for making adjectives: Hin. *āglā*, Mar. *aglā* (where the cerebral presupposes a single *-l-*), Nep. *aghillo* at the head of *(-agra-)*: Hin. *pahilā* (of Skt. *prathama-*; Pkt. *pahillai* puts at the head of); Beng. *pākila* ripe *(pakva-)*. Marathi has also *aglā* and *māglā* behind (without the cerebral doublet). Cf. Gujarati *āglo, āglo* and *pāchlo* behind. The cerebrals are then, secondary. Marathi, Gujarati (recently), Bengali, Bihari and a few of the Hindukush languages also enlarge their past participles in this way; Mar. *gelā (gata-)*, *pātlā (prāpta-)*, Beng. *bhāngila* broken, *sutila* asleep, and from them the absolutive in the oblique case: *calile* having set out.

Another very frequent enlargement in the modern languages is the cerebral *ḍ* or *ṭ*. VS *kukkuṭa-* cock, formed from an

onomatopoeia bears witness to the antiquity of the process in the popular language. Pāṇini gives *vācāla-* talkative, but examples are seldom met with until Apabhraṃśa and Deśī. It has some etymological force in Beng. *khāgrā* plant with a sharp leaf *(khadga-)*, *pātrā* leaves and stalks *(pāt* leaf), *śāsurī* equivalent to *sās (śvaśrū-)*, *cāmrā* leather *(carma-)* etc. It is a diminutive in Sind. *pandhro* little voyage, *bholiro* little monkey, Guj. *gāmḍū* hamlet, *ghāṭḍī* little bell, Hin. *aṅkrī* fish-hook, *aṇḍrā* little or bad egg.

The voiceless form which presupposes Skt. *-ṭṭa-* is represented in the adjectives derived from verb roots in Marathi and Sindhi: Sind. *gharaṭu* surrounding, Mar. *cepaṭ* flat; in the same way regularly in Bengali *ghasṭā* rubbing or rubbed, and on the noun stems: *pāsuṭa* greyish, *rogāṭe* ailing. It is apparently the same suffix, which terminates Gawarb. *šauṭə* head (cf. Skt. *śiraḥ*). Bengali makes a particular use of it; affixed to nouns it gives them a definite value, becoming a substitute for the definite article *gāchṭā* this, the (tall) tree, *gāchṭī* this, the small, this pretty tree.

The forms *-vaṭ* (Hin, *banāvaṭ* fabrication) and *-haṭ* (Hin. *bulāhaṭ* call) are obscure. The root *ghaṭ-* to fashion, cf. Skt. *dantaghāṭa-* ivory-worker, calls to mind only one of the two forms and does not explain its use to denote an action noun.

The Sanskrit prefixes have left traces. For example, many words begin with *pa-(pra-)*, and with *o-* and *-u* representing *apa-*, *ava-*, *upa-*, *ut-* indifferently and accordingly without clear signification. Certain Sanskrit prefixes are employed quite freely, but with words which are themselves Sanskrit. They are *sa-*, *su-*, which are capable, moreover, of incorporating *sva-* *(subhāv = svabhāv)*; *a-* negative is quite frequent under the form *an-*, even before a consonant, as in Middle Indian. There are naturally Islamic prefixes: Hin. *be*, Rom. *bi-* without, which correspond with Persian *be*, *bī* and not with Sanskrit *vi-*; *bad-* ill-, mis-; *nā-* un-, not, which may be connected in Bengali with indigenous words and supported by Skt. *na*. But all this does not really affect the formation of words in the current vocabulary.

INFLEXION

In the course of the development of Middle Indian, the assimilation of the nominative and accusative, which, to start with, was normal only for neuters, is brought about by phonetic processes

and morphological analogies. This takes place fairly soon in the masculine and feminine nouns in -*i*- and -*u*-, but the masculine thematic stems have resisted assimilation much longer. Prakrit, however, already admits the acc. *puttā* beside *putte*. Ultimately, from the day on which, as in Apabhraṃśa, *putto* and *puttaṃ* are united in *puttu*, we find an inflexion of nouns comprising a direct case in opposition to the indirect cases.

p. 167   The latter may be divided into two groups:

On the one hand there is the substitute of the old genitive-dative, the general function of which is to carry postpositions (prepositions are quite exceptional: Ashkun *pa*, Prasun *nu* in), which define more accurately the connexion of the substantive with the sentence. It happens, however, that this 'oblique' may be completely missing in nouns, while existing in pronouns (e.g. Maith. Beng. *se: tā*; Pashai *ūse: ūtis*; in Chattisgarhi only in the singular of personal pronouns and the interrogative). In this case postpositions can be more easily welded to the noun and a new inflexion is established.

On the other hand we find the specialised cases: instrumental, locative and ablative, which have to a great extent survived, but become separated in due course from the declension properly so called. They persist only where there is no longer any other inflexion and are eliminated where there is regular inflexion. In fine they assume the force of an adverb.

The direct case

There are two forms—one terminated by an attenuated vowel or a consonant, the other by a long vowel. The former is the root form; in the consonant type genders and numbers are indistinguishable. They do occur, on the contrary, in the latter category and this fact is, no doubt, the reason for their general use in adjectives, or nouns which do not express sex in their root-forms.

Root nouns

Singular	masculine	feminine
OWR	*pāu* (*pādaḥ*)	*vāṭa* (Pkt. *vaṭṭā*)
		āgi (*agniḥ*)
Sind.	*ḍeh^u* (*deśaḥ*)	*sadh^a* (*śraddhā*)
	p̄i^u (*pitā*)	*rāt^i* (*rātrī*)

	keharⁱ (keśarī)	vij^u (vidyut)
Shina	mos (māṃsam)	jip̱ (jihvā)
		grēn (gṛhiṇī)
		šaṣ (śvaśrūḥ)
Kash.	ċūr (coraḥ)	zev (jihvā)
		rāth (rātrī)
Eur, Rom.	ċor	ċib, rat
Hin.	cor	jībh, rāt, sās
Chat.	phar (phalam)	goth (goṣṭhī)

Similarly for the neuters: Mar. *sūt (sūtram)*.

The reduced vowel comes or used to come from the vowel endings: Pkt. *coro, coraṃ; jibbhā, jibbhaṃ; ratti, rattiṃ; aggī, aggiṃ; sassū, sassuṃ*. Modern uniformity may conceal a variety of developments. We find in Old Bengali *kumbhīre*, the crocodile, *kāhni* (vocative *kṛṣṇa*), in dialectical Bengali *puti* beside *put^a*, *nei (sneha-)*. It is often thought that these are the remains of the characteristic *-e* of Māgadhī Prakrit; the enlarged form is *-e: loke bole* people say, *cala sabe* come all of you. The coincidence is disturbing, and it is remarkable that Old Singhalese possesses a masc. neut. nom. in *-e (putte, lene)* which is opposed to the masc. pl. *-ahu*, as AMg. *-e* is to *-āso*. But the very opposition of *-e: -āso* in this later dialect indicates that it is a question of a morphological, not of a phonetic fact. In Bengali itself as in Singhalese the normal enlargement is in *-ā*, which cannot come from *-ae*, as *lok-e* would do according to the hypothesis. If this latter form were phonetic, the whole *-ā* group would have to be considered as a modern borrowing from Hindi. Consequently some writers have fallen back on the instrumental. This raises a question of syntax and presupposes the previous graphic equivalence of *-e* and *-ahi* or *-eṃ*. The question remains obscure.

Even where they exist (the enlargement has been generalised in modern Singhalese), short stems do not appear all at the same time in every language. The *-u-* stems are generally enlarged and similarly, but less often, the feminine stems in *-ī*: thus Garwi has *put* son, but *sase* sister; and even in an adjective Maithili opposes feminine *barⁱ* to masculine *bar* great.

Plural.

Masculines

The plural of masculine stems, which were formerly thematic, Pkt. *-ā*, does not appear in consonantal stems: Hin. Rom. *ċor* Kash. *ċūr*. In words, in which an attenuated vowel remains, it

is opposed to the attenuated vowel of the singular (Apa. *-u* from Pkt. *-o* and *-aṃ*):

Sind.	sg. *ḍeh*^u	pl. *ḍeh*^a
Lakhimpuri	*ghar*^u	*ghar*^a
Early Konkani	*jaṇu*	*jaṇa*

p. 169   There remains a trace of this opposition in the vowel alternation of polysyllables in two neighbouring languages:

Kash. sg.	*wãdur*	pl.	*wãdar* (but *ċūr*)
Lahn.	*kukkur̥*		*kukkar̥* (but *ghar*)

The need for clearness was, no doubt, one of the causes of the extension of the enlargement in the plural of nouns with root stems.

European Romany opposes the plurals *manušā*, *phalā* men, brothers, to the sg. *manuš*, *phal*, as in the fem. sg. *čib*, pl. *čibā*.   In Nuri *mānus-e* is regular as opposed to *mānŭs*, cf. pl. *cone* of sg. *conă*.   Similarly Tirahi *ādam* man. *ādəm-a* men, beside *māl* sg. and pl.; Kati *tot-kil-e* fathers, Waigeli *guṛ* horse, *guṛ-e* horses, Brokpa of Ḍah *apš-ā* and *apš-i* horses.

In the nouns in *-i*, Sindhi has *kehar*^i in the plural as in the singular.

Neuters

Pkt. *-āiṃ* was contracted in different ways according to locality: Mar. *sutẽ* threads *(sūtrāṇi)*, Guj. dial. *gharã* houses (standard *gharo; -ã* is used for enlarged nouns: *chokrã*, pl. of *chokrū* child), Konkani *varsã* years *(varṣāṇi)*.

Feminines

In the old *-ā* stems, Pkt. *-āo* generally became *-ā*: Kash. sg. *zev* tongue: pl. *zeva;* Eur. Rom. *čib: čibā;* Mandeli *ded* sister: *deddā* (but *ghar* sg. and pl.); Mar. *īṭ* brick: *īṭā;* Konkani *vāṭ* road: *vāṭo*.

But in another direction we have endings taken from the neuter in the languages, which have only two genders: Braj *bātaĩ* words, Hin. *bātẽ;* Lakh. *kitābai* books, *barsai* years, which carry on the inanimate words in *-aĩ* of Tulsidās.   Sindhi has *sadhã* and *sadhŭ* wishes, cognate to Gujarati, which has a plural neuter in *-ã*, Lahnda has *zabānã* tongues and finally Marwari *bātã*.   In these two latter languages the direct case thus resembles the oblique.

p. 170   The history of this substitution is unknown.   We expect to find an *-ī* answering to Pkt. *-īo* in the successors of the Middle

Indian nouns ending in -*ī* and we do, in fact, find it: Mar. *bhint* wall, pl. *bhintī;* Konk. *kūḍ* body, pl. *kūḍī;* Bhadraw. *baihṇ* sister, pl. *baihṇī;* Kash. *rāth* night pl. *röċ*ᵘ. Whether -*ī*, like -*ā* seemed awkward because it was reminiscent of the masculine singular, or the feminine singulars borrowed from Sanskrit *(nadī, ājñā)* or for some other reason, we generally find the endings enlarged: Eur. Rom. *phen* sister, pl. *phenīā, ċurī, ċurīā;* Torwali *dhū* daughter, pl. *dhī* (cf. *aśī* fem. sg. and pl.; masc. sg. *aśū* was). The enlarged ending in Sindhi is in a neuter form: *rātiū*. In Lahnda it is simply adapted to the neuter: *akkhĩ* eyes (Skt. *akṣīṇi* a neuter which has become feminine with other -*i* stems: a possible source of the neuter inflexion of the fem. pl.); *chohrĩ*, pl. of *chohir* sister; *rannă* women, from *rann (raṇḍi)*. There is the same transfer to the -*ā* declension in Hin. *bahnē* sisters etc.

The -*ū* nouns are modelled on the other declensions and particularly on those in -*ā*, either by analogy, Lahn. *haň ū* tears, like *bhaṇă, zabānă;* or by complete assimilation, Mar. *vijā* (Sind. *viẓūṃ*).

Plural of nouns of relationship

The nouns of relationship in -*r*- continued for a long time to form a separate group and there are still traces of it to-day. Moreover, other nouns with cognate meanings were incorporated. For details of treatment in Middle Indian see p. 138 last para. carrying over to p. 139.

Now in Sindhi the nouns of relationship have preserved the characteristic *r* in the plural:

sg. *pi*ᵘ   pl. *piur*ᵃ   *mā*ᵘ   *māir*ᵘ   *bhā*ᵘ   *bhāur*ᵃ
Similarly by analogy *bhen*ᵘ, *dhi*ᵘ, *nuh*ᵘ.

Hindki *dhīrĩ* daughters, *nohrĩ* beside *nūhā* daughters-in-law, are, no doubt, relics of this declension, *LSI*, VIII, ɪ, p. 337.

In Shina there is a group of relationship direct or by marriage, which has its plural in -*āre̩: di* daughter: *dizāre̩, ma* mother; *măyare̩, sa* sister: *sayāre̩, šăṣ* mother-in-law: *šaṣāre̩, grēn* wife: *grenāre̩, me̩ō* son-in-law: *žămċāre̩, šairi* brother-in-law: *šaiyāre̩* etc.

ENLARGED NOUNS

The history of the direct cases of these nouns depends principally upon the formulas for contraction in each language. It will be at once remarked that in the nouns in -*ī*, the Pkt. sg. -*io* and

pl. -*iā* result in the same ending; so Hin., Sind. *mālī*, Mar. *māḷī*
gardiner(s), are at once singular and plural. We need, therefore,
make the masculines in -*ao* alone our basic consideration, to be
followed by the neuters in -*a(y)aṃ* and the feminines.

Masculines

In the singular Braj preserves the diphthong in the participles
(*gayau* gone) and the infinitives (*mārnau* to strike); but *ghoṛā*
horse (see p. 184). In Sindhi, Rajasthani, Nepali and Bundeli
the result is *ghoṛo*, Guj. *ghoḍo*, Konk. *mahālo* barber; to these add
Kash. *gur^u*, Shin. *mālu* (*mahallaka-* father), Torw. *šū* having
become, Eur. Rom. *khorō(ghaṭa-)* pot.

In Marathi, Hindi, Braj, Panjabi and Bengali: *ghoḍā*, *ghoṛā;*
Pašai, Gawar. *gora*, Waig. *ṭaṭa* father, Ašk. *kằṛa* blind.

Syrian Romany has the two forms: *bakra* sheep, *dīrga* long is
the type for adjectives; the type *ǰantrō* son-in-law (*jāmāṭar*),
zarō boy, is exceptional, but is preserved in the preterite with the
pronominal suffix: *nandō-m*, -*r* I have, thou hast brought. Marathi
has also verb forms constructed on participles apparently in -*ṭo*
and -*lo* besides -*ṭā*, *lā* (cf. Doderet, *BSOS*, IV, p. 567). As regards
Braj see above. For Bengali *loke* see p. 168 and 175.

In the plural the results differ, according as they developed
from *-*aya* or *-*aa* (Skt. -*akāḥ*): Guj. *ghoḍā* but Mar. *ghoḍe*, Bund.
Hin. Panj. Sind. *ghoṛe*, Kash. *guri:* Shin. *māle*, Waig. *ṭāṭe* fathers,
Eur. Rom. *khore* pots; Nuri *bakre* sheep (extended to root nouns:
manuse men, *age* fires).

Neuters

Mar. *kaḍĩ* plural of *kaḍẽ* bracelet; Guj. *chokrằ*, plural of *chokrū*
child.

The rules of contraction for the masculine and neuter are
independent. Konkani, which has masc. *ghoḍo* like Gujarati, has
burgẽ child, in the neuter according to the Marathi rule, pl. *ghode*,
burgīṃ.

Feminines

Guj. *ghoḍī* and, in all probability, Kash. *gurĕ* must be connected
with Pkt. *ghoḍīo*. But there was besides a form -*iằo*, -*iao*, whence
Guj. *ghoḍiyo*, Konk. *ghoḍyo*, Mar. *ghoḍyā*, Eur. Rom. *ranīā* ladies
(Hin. *rānī*, Skt. *rājñī*); Hin. Panj. Raj. *ghoṛiyā* and perhaps Nuri
conie, *jūre* from *coni* girl, *jūri* woman, have a neuter ending; cf.
the neuter *pāni-e* waters; thus meeting masc. *bakre*, see above.

The same question arises for Shin. *mulāyĕ* beside *mulāyo*, plural of *mulāi* daughter, cf. *aͅchiye* fem. eyes (formerly neut.), *seve* plural of *saŭ* bridge *(setu-)*, and masc. *mālĕ* fathers.

The indirect cases

Opposed to the single direct case there is normally an oblique case with various functions, based on the old genitive and supported by postpositions. In addition we find to some extent everywhere the remains of three old cases, the instrumental, ablative and locative.

Instrumental

One would have thought that this case at least would leave considerable traces, as it had to be used with the past forms of the verb, which, as will be seen, are constructed as passives. This is not so; there survives little more than singular thematic forms, generally adverbial in function.

p. 173

Old Marathi makes abundant use of it: sg. *gādhavē (gardabhena)*; in *seṇavaiē* the ending is applied to a stem in -*i*- *(senāpatinā)*; masc. neut. pl. *paṇḍitī̃*, *cinhī̃* (from Pkt. -*ehiṃ*). As for the fem. sg. *deviā̃*, as distinct from the oblique *devie*, are we to compare Pkt. -*āe* or is it a Sanskritism? In any case there is no plural: *pūjā̃* by offerings, is an oblique, like the neuter adjective in *aisā̃ cinhī̃* by such signs. There survive to-day only singular thematic forms in words serving as postpositions like *mūḷē* because of, *saṅgē* in company of, or in groups of the type of *āplyā kr̥p-ē karūn* by your favour.

In the enlarged adjective, masc. *boḍu*, fem. *büḍu* great, Kashmiri distinguishes the dat. sg. masc. *baḍis*, fem. *baje* from the agent masc. *baḍi*, fem. *baji* the endings of which go back probably through O. Kash. -*e*, -*i* to Pkt. -*(a)ena*, -*īe*.

In the plural the ending is confused with that of the ablative; and in the singular of root nouns masc. *c̣ūran* seems to have been formed from the abl. *c̣ora*. In any case it differs from it; cf. *sütin* with, from *sahitena* like Mar. *śē̃*, *sī̃*?

In Singhalese inanimate nouns, which correspond to the neuter root nouns, have an instrumental singular ending *aten*, *atin (hastena)* from *ata* (enlarged direct case) hand. The modern plural of these nouns being formed by a compound, the second

term of which behaves as a singular, the form of the instrumental is here the same: *atvalin* with the hands.

OWR *-ī* apparently succeeds Skt. *-ena*, Apa. *-ē: sukhī, dehaī;* and similarly *pāṇiī;* O. Guj. *ghoḍaī, hāthiī.* For the feminine *striī, mālāī.* In the plural *hāthe, nayaṇe, pāṇīe*, fem. *jvālāe, nārīe, -e* corresponds to Apa. *-ahī*, which replaces Pkt. *-ehī.* There survive only the forms in Guj. *hāthe*, Raj. *ghoṛai*, Guj. *ghoḍe, ghoḍāe* (direct *ghoḍo*, oblique *ghoḍā*).

In Old Bengali there is complete unification: *begẽ (vegena)*, *-jālẽ*, fem. *līlẽ, bhāntiyẽ (līlayā, bhrāntyā)* and in the plural: *tiṇiẽ paṭẽ* with (or in) three beings; there remains *hāthe* with the hand. Similarly in Maithili *phalẽ, nenẽ* beside *nenā sã* by the boy (direct *nenā*) and similarly *pāniẽ* and in the feminine *kaṭhẽ beḷiẽ.* The ending *-ẽ* has become a suffix.

It is met again in the Northwest, but the extent of its occurrence is not ascertainable: Waig. *avoṭẽ* (Aškun *awoṭū̃*), Khowar *chuī-en* by hunger, Waig. *sudẽ* far (*sudu* distant), Khowar *pacen* for (probably *pakṣeṇa*).

ABLATIVE

Here the fragments are rarer still and they also are connected with the originally adverbial singular ending, Pkt. *-āo.* A regular formation in Sind. *-āu* and included in Mar. *-au-ni, -ū-n*, it supplies to OWR the type *hāthohāthaī* from hand to hand, *disodisi* everywhere, cf. Pa. *disodisaṃ.* In the Northwest group we find Khow. *an-ār* from the mountain (gen. *ano*), *ačar* after, cf. *ače* behind; Torw. *šira* from the house, cf. instr. loc. *šire*, obl. *šir;* perhaps Gawarb. *bābo* from the father, cf. obl. *bāba;* O. Kash. *ösā* from the mouth, Kash. *cūra* from the thief, *peṭha* from above, *andᵃra* from within. In European Romany the adverbs made with the corresponding ending have a locative sense: *talal* below, *angal*, *(agratah, *aggāto)* before, and consequently *muī-al* opposite.

We also find a form with a nasal, which seems due to the analogy of the instrumental: Braj *bhukhõ* from hunger, *sõ* from, cf. Hin. *se*, Mar. *sĩ* with; OWR *kopã* from anger, is rare; Panj. *gharõ*, Sind. *gharā* and consequently fem. *zabānã* from the tongue, *noṛiã* from the cord, plur. *gharaniã* from the houses; *-aū, õ, ū* are also found, particularly in the postpositions *khã, khaū, khõ* from. We should probably further compareAšk. *awoṭū* from hunger. And, in spite of the meaning, the old Marathi locatives *galã* in the throat, *iyã pāṭaṇĩ* in this town of P., Kon. *śeṭã, garã* in the field, in the house, are no doubt of the same origin.

LOCATIVE; EASTERN OBLIQUE

Here again, the only old ending, which is clearly preserved, is that of the singular of thematic nouns. Skt. -e sometimes persists as -i ; Kash. wāri in the field, O. Guj. hāthi (haste), cf. OWR ghari, kūi. Generally this vowel was dropped, Hin. Rom. etc., dūr far, La. ghar at home, Beng. dor dor from door to door; leaving in exceptional cases a trace of itself in the preceding vowel, as Guj. gher, Kon. ger (from ghari), Lahnda jangil (from jangul, obl. jangal). This form is preserved in a certain number of post-positions; Kash. manz in the middle of, in (madhye), Hin. pās near (parśve).

In enlarged nouns -ake becomes a vowel -e or -i: Rom. khere, O. Kash. gare, Guj. Panj. La. Raj. Braj, O. Beng. ghare ; O. Kash. āthe in the hand (haste), dūri, anti, gagani ; Kalasha khure near, Rom. agre at the end, andre inside. We still find in Marwari āgai before, pachai behind, mai inside.

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This ending was sometimes extended to other stems: Panj. chãwe from chã(w) shade (chāyā) ; O. Kash. vate on the way, dāre on the river (dhārā), mod. dāri dāri with waves; O. Beng. sãjhe in the evening. There is no reason to believe that we have here the old oblique in -āe used as a locative; moreover, in OWR rātrai, bāhi (from bāhu) and particularly in vidyāi, śibikāī, -i is really a postposition.

A more serious difficulty is presented by the coexistence of two endings in Apabhraṃśa, -e, -i and -ahī (see p. 143). The latter is confirmed by O. Hin. desahī in the country, sevakahi nidrā lāgai sleep affects the servant; hiahi in the heart, beside divasai ; by Kash. antihi beside anti ; O. Sgh. veherahi beside veherä, and to-day there is still Lakhimpuri gharai, gāwai, bajārai (to go) to the house, village or bazaar, beside duāre (to be) at the door, outside, samahe before. In the feminine Lahnda akkhĩ, zabānĩ (Panj. pl. gharĩ, hāthĩ are probably adaptations of this). In many cases it is impossible to detect on which of the endings -ai and -e rest. Moreover, confusions with the instrumental are to be expected: and ghoḍe, in Gujarati and Marwari have actually these two values.

In Gujarati this ending functions as a suffix, when it follows the oblique; ghoḍāe, similarly fem. ghoḍīe, pl. ghoḍāe, ghoḍāoe, ghoḍīoe ; similarly in Singhalese the locative plural is exceptionally formed by the combination of the oblique with -hi: laṁbaranhi in the lotuses.

Either simply because the locative is in general a case of all work, cf. p. 158; or in consequence of confusion with the enlarged masc. sg. oblique *-ai* from *-ahī*; or because a Pkt. pronominal oblique *-ahi* coming from Indo-european persisted or for any other reason, there is always in the eastern group an oblique, which coincides with the locative.

O. Awadhi-Tulsidas: *śanchepahi* to sum up, *gunahi* in virtue, are no longer locatives, any more than in the plural *pāyanha* on the feet, *pīḍhana* on seats; and, in fact, we shall find not only *corahī rāti na bhāvā* the night is unpleasing to the thief, but also *motihi jo* glitter of pearl, *Rāmahī līkā* crowning of Rama, and *purohitahī dekha rājā* the king sees the chaplain, ultimately open to dispute.

O. Maithili *haraḍahi* in the pond, *khetahi* in the country, and also *balahi* by force (which might contain the remains of Pkt. *-āhi*) and p. 176 especially *satruhī ān* he brings an enemy (another ending *-hu*; the remains of Apa. *-ahu* Pkt. *-āo* of the ablative?). Similarly O. Beng. *kulẽ kula* from bank to bank, but also *sahaje kahei* describes the sahajya (Cārya).

There was therefore a real oblique in this group based on the locative. It has now disappeared. In Maithili there is also another oblique in *-ā*; and in Bengali there is no longer a special form for the oblique. Perhaps *-e* has become an enlargement for direct cases, see above p. 168, 172.

Oblique proper

Excluding the above-mentioned survivals, inflexion, when there is any, always connotes, in contrast with the direct case, a case, which is capable of several oblique values and is generally supported by a postposition.

Plural

Almost everywhere the oblique appears clearly in the plural. It is characterized by the final nasal consonant or nasalised vowel. O. Sgh. *piḷimalna* wrestlers *(pratimallānām)*; *danan (janānām)*, *mahaṇun* (cf. AMg *māhaṇāṇam*); *vedun* doctors *(vaidyānām)*. In mod. Sgh. only animate nouns have an oblique plural.

Eur. Rom. *månušen* men, *čaven* boys; fem. *čiben* tongues, *phenien* sisters; Nuri *mănsăn*, *čonan*, fem. *lačien* girls.

Kati *mančā* men, from *manči*. Aśk. *gōṛā* horses, *brā* brothers, *susā* sisters, *nokaran* servants. Waig. *goṛā* horses, *jarā* friends (Pers. *yār*); with the plural suffix *-kele: tatekeliyă* fathers; Pras.

yākiliō fathers, *luštkiliō* girls.   Pash. *ādmey*ªn men; *weyan wayă* girls, from *weya*.   Khow. *dagan* boys, *annan* mountains.

Kash. *ċuran* thieves, dative of *ċūr; gurĕn* horses from *gur*ᵘ; fem. *mālan* garlands, from *māl; röċ*ᵘn nights, from *rāṭh, garen* mares, from *gur*ᵘ, Tirahi *wranin* sheep, *adaman* men; *dun* daughters, from *dī*.

Nasality is absent in Shin. *-o*, Torw. *-a* (cf. instr. *-e*).

Sind. *ḍehan*ⁱ country, *piun*ª, *piuran*ª fathers, *keharin*ⁱ lions: fem. *sadhun*ⁱ vows, from *sadh*ª, *vijun*ⁱ lightning flashes, from *vij*ᵘ; *rukhan*ⁱ, *rukhẽ, rukhā* dry, from masc. *rukho, rukhin*ⁱ, *rukhiẽ, rukhiă* dry, from fem. *rukhī*, Braj. *gharan(i), gharanu, gharaū*; fem. *bātan(i), bāta ū*.

Panj. Lah. Raj. *ghară*, Guj. *gharo;* Hin. *gharō* houses, *ghoṛō* horses, *ghoṛiō* mares; Mar. *ghară, suṭă* threads *(sūtra-)*, fem. *iṭă* bricks *(iṣṭā-), rāti* nights.

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Awadhi (Lakhim) *coran* from *cor, diyan* from *diyā* lamp; *admin, hindun*, fem. *lāṭhin* sticks.

In the eastern group there are no proper obliques.   But there are a few forms of it which serve particularly as plural suffixes: Maith. *lokani*, Mid. Beng. *sabhān*, Beng. *-gulin, -gulan* beside *-guli, -gula.*

The coexistence of forms with nasal consonants and nasalised vowels in Sindhi and Braj agrees with the double ending of the old Hindi poets: Tulsidas *surana, nāuna* on the one hand and *loganha, muninha, badhunha, dāsinha, nayananhi* on the other. These latter endings (and consequently the other endings in *-n*) arise from the addition of the Apabhraṃśa ending *-(a)ha* to the old ending (cf. conversely, p. 144, H. Smith, *BSL*, XXXIII, p. 171, n. indicates some parallels, and in particular the triple Hindi pronominal genitive *in-h-ō* these).   The need for these reinforcements arose, no doubt, from the phonetic conflict between the direct neuter (then in course of time the feminine) proceeding from Skt. *-āni* and the genitive proceeding from *-ānām*.

Singular

In the masculine, the Pkt. ending *-assa* is recognisable in a part of the N-W group: Eur. Rom. *cores* (which, according to Turner, *JRAS*, 1927, p. 233; *BSOS*, V, p. 50, presumes an intermediate form *-asa*; the accented pronoun *kas* would preserve a trace of *-ss*-), Nuri *mansas* (ending extended to the enlarged nouns: Eur. Rom. *caves* from *cavō*, Nuri *cōnas* from *cōna*) have the function of accusatives; Kash. *ċūras, guris (ghoṭakasya)*, Kal. *moc-es* of

the man, and consequently *čhūlas* of the girl: Pash. *lonis* of salt, and *weyas* or *wayes* of the girl.   In India proper only traces of it remain in the pronouns, where naturally the forms for the two genders correspond *(asya, asyāḥ)*; Hin. *is, āpas mẽ* in it, mutually, Braj *is* beside *yāhi*, Panj. *jis* beside *jih*, Lah. *ke nă-us* what is his name? *kass-is* his fever, he has fever; *jāle os* fact known to him, —but in this last language, as also in Kashmiri, one might, if need be, regard it as a locative singular, comparing *assi* we, for the phonology.

Elsewhere, so far as root nouns are concerned, the locative type is exceptional, p. 175.   As a general rule there is the well attested *-ā* Apa. *-aha:* Mar. *devā* (unless this is an old dative, cf. *LM*, p. 184) from *dev*, Sind. *devᵃ* from *devᵘ*, Lah. *kukkaṛ* from *kukkuṛ* cock, Lakhim. *gharə*; Maith. *anhᵃrā* blind, and infinitives *dekᵃb-ā* under certain conditions; Beng. *dekhibā(r)* to see; Torw. *pand-a* road, Gaw. *bāb-a* father, Ashk. *mač-a* man (in the three last languages -*a* in the feminine also), Kho. *dag-o* boy, *an-o* mountain, Waig. *guṛo* from *guṛ* horse, and *ṭaṭo* from *ṭaṭa* father.

In Gujarati, Hindi etc. we find "zero endings" (see p. 179 end).

In enlarged nouns a trace of the old guttural often appears in the palatalisation of the vowel, the *ghoṛayā* type: Raj. *ghoṛā* from *ghoṛo*, but Mar. *ghoḍyā*, Sind. Lah. Hin. *ghoṛe*, Braj *ghoṛai* from *ghoṛā* (O. Braj. *ghoḍau*); in Lakhimpuri *ghoṛā* does not vary, but in the radical nouns the oblique of *ṭhaṇḍ* cold, is *ṭhaṇḍe*.

In the feminine Marathi distinguishes *māḷe*, Pkt. *mālāe* from *rāṭī*, Pkt. *raṭṭīe*; similarly Eur. Rom. *čiba* from *čib* tongue, and *phenī* from *phen* sister *(jihvā, bhaginī)*.   Kashmiri makes *māli* uniform with *röcᵘ*.   In Nuri, Sindhi, Hindi and *a fortiori* further East, and in Gujarati there is no special form.

In enlarged nouns, Pkt. *-iāe:* Mar. Guj. *ghoḍī*, Raj. Panj. Hin. Lakh. *ghoṛī*, cf. Torw. *šī* oblique of *šū* sister; but OWR *devīa*, *rānīa*, Rom. *rānīā* from *rānī* lady, Nuri *cōni-a* girl (which seems to have carried with them the masculines in -*i:* *bēlia* friend); Sind. *goli-a* slave, probably Kash. *guṛĕ* mare, Sgh. *kikiḷiya* from *kikiḷī* hen.

European Romany still preserves the old value of the oblique: *na delas ī Jakes či te xăl* did not give Jack anything to eat, *sas me dades* was my father's, *sī les, len* is his, theirs; with a more flexible use in the adverbs; *lačanes* in truth, *akedives* to-day. Elsewhere, even in languages, which have preserved other old oblique cases, the oblique expresses a greater variety of relations.

Kash. *relas kharaj* the expense of a month; *phakīras osu* was the fakir's; *niyĕ khabar rājĕs* the news was brought to the king; *masl kāsani amis lālšĕnākas* to cut this lapidary's hair, and *kĕnčhāh karta amis lālšĕnākas* do something in connexion with this lapidary; *dop*[u].... *pananis mölis* (she) said to her father; *wüčh*[u]*s grīsliyaras* I arrived at the house of a peasant, beside *garan* in the houses, *wôlu gara* (direct) he arrived at the house, and *gari* (abl.) *bĕhun* to remain at home; *jenalas kina dōzakas* in heaven or hell; *su*[a]*bhas* in the morning. Ashk. *gōṛā* (put the saddle) on the horse, opposed to the direct *goṛä* (I give) a horse.

Inscr. O. Mar. *madhā dinhalā* given to the temple; Jñāneśvarī
vasayā bhedĕ by the difference of age; *te samaslă kriyă năva* it is the name of all activities; but also *māsiyă kope* is annoyed at the flies, *gaganā bheṭe* he touches the sky, *svabhāvĕ vilayā jālī* from their nature go to destruction (there is a locative: *sāgarī* in the ocean).

Similarly Sind. *pānaw*[a]*-ji*[a] *pabbūh*[a] (seduced) by the smile of the hero.

This construction of the oblique is exceptional; it serves normally, according to the grammarians, as base to a composite word, the second part of which. is a "postposition", which is, in fact, a declined word governing the genitive. The construction is therefore the same as the French *à côté de* beside, *dans la direction de* in the direction of, *à l'égard de* with regard to, etc.

This is old. O. Mar. *aisayă kājă lāgī* for such acts, *kṛṣṇā te mhaṇe* he says to Kṛṣṇa.

O. Awa. (Tulsī Dās) *barahī lāgi* for the bridegroom, *milehī mājha* in obtaining.

O. Beng. (Saraha) *svapaṇe mai* in sleep.

O. Kash. (Lāl Ded) *pānas manz* in myself, *kañe pĕṭhay* on the stone.

Kashmiri presents a complication: besides the old genitive (called dative) *čūras* there remains an ablative *čūra*. Now, while postpositions like *andar* inside, in, *manz* in the midst of, in, *kyut*[u] for, etc., go with the dative, the postpositions with the meaning and in the form of the ablative go with the noun in the ablative: *aḷa peṭha* from the market, similarly *andar*[a] from among, *kin*[i] because of etc. This construction cannot be old. Sanskrit uses *samīpāt* like *samīpe*, with the genitive. Still it must be observed that in O. Marathi the words meaning "with" are instrumentals accompanying nouns in the instrumental: *jivilĕ sī* with life, *ihī nānābhūlĕ sahilĕ* with these diverse creatures. We have here, therefore, either reduplication of expression or attraction of form

dating from the early period of the modern languages; and not a
survival of the Sanskrit type *madhye samudre* see p. 159.

Zero endings.

We have seen that in Gujarati and in the Hindi group the radiéal
nouns have no oblique singular. This is an old idiom. Tulsi
Das has *raghubaṃsinha maha* among the Raghu family, *laruba-*
ranha madhya in the fine trees; but *chana mahā* in a moment,
jaga măjă in the world, *saciva sanga* with the minister, *Sambhu*
pahā near Sambhu, *biricha lare* at the foot of the tree, *bhagalana*
(obl. pl. acting as a genitive) *hila lāgī* for the good of devotees,
Dacchakumārī sanga with the daughters of Dakṣa.

In O. Gujarati we find the zero radical oblique and the enlarged
oblique in the same sentence: *varga laṇā pahilā akṣara parai* after
the first letter belonging to a varga (direct *laṇau, pahilau*). In
OWR Tessitori notes that -*ha* "has a very strong tendency to
vanish without leaving any trace"; *vanaha mahi* in the forest,
but *Jina sālhi* with the Jina, and even, but more rarely, with a
plural: *kumāra sū* with the princes.

The fact that the oblique appears in the other forms leads one
to suppose that here there has actually been a quick reduction of
the ending. However, we find in O. Marathi *nilyayāga sahilē*
with the periodic sacrifices, in O. Kashmiri (Lāl Ded) *bara pĕḷha*
on the door, against *ċāyēs bāgābaras* I will enter (by) the garden
gate.

It seems therefore that here there may have been a convergence
of dependent and compound constructions, reproducing the early
doublets: Skt. *lasya samīpāl* and *lalsamīpāl*, *upari ghanānām* and
Cāṇakyopari, Pa. *Golamassa santike* and *nibbānasanlike*, *vānarassa*
piṭṭhe and *sīhapiṭṭhe*. The poets, no doubt, at a very early date
took the liberty of recording the evolved form of the oblique
which by a lucky coincidence was identical with a cherished
traditional form. This is why Cand records the oblique of the
possessive adjective of the pronoun: *lā* (Apa. *lahu*), but not that
of the noun in: *lā ke kula le uppanau* born of his race, and without
a postposition: *saba jana soca uppanau* to all the world the anxiety
is born.

This is perhaps just the effect of a style in which grammatical
relations are effaced, so as to recall the long compounds of the
fine Sanskrit style. It must be said, however, that this effect
would not be so marked, if the spelling preserved (as the pronuncia-
tion of the poet at least probably did) the feebly articulated but
still perceptible vowels, as it still does in Sindhi and Lakhimpuri.
Perhaps there were here at first *⋆sab^i jan^i soc^u*.

In one case the form preceding the postposition is the direct case. This is when the postposition is originally not a noun, but a verb with a direct object (cf. p. 160). So in Shina *mažā* in, p. 181 *sāti* with, go with the oblique, but *gi (gṛhitvā)* with (made) of, is used with the direct case: *cilim rilgi* copper pipe; but the oblique is admitted by analogy: *cilim rilai gi*. In O. Mar. *vācūni* except, properly "leaving", is still constructed with the direct case. In Bengali they say *Mathurāpurer mājhe* in the town of M., and *ban mājhe* in the wood, but only *hāth diā dekha* examine with (placing) the hand; *mor ṭhāyi* in my place, mine, but *āmā chāṛā* without me, besides me.

The postpositions. The possessive adjective

The part played by the postpositions having been thus defined, it would seem that it only remains to classify them etymologically. This would be correct, if the words used as postpositions had all retained an independent existence and a clarity comparable to that of the French prepositions *de, depuis, parmi, sauf*, etc. But this is not the case; a large number of Indian words exist only as grammatical implements. Cf. the English prefix *a-* in *a-broad, a-sleep*. They have on this account suffered a phonetic deterioration, which is brought out in certain doublets: Sind. *mãjhã* and *mã* in, Hin. *ūpar* and *par* (this is not a question of Skt. *upari* but of a word constructed as a locative, Pkt. *uppari*, Panj. *uppar ;* locatives in form are Rom. *opre*, cf. *oprāl* abl., Mar. *varĩ*); Shin. *goṭěž ǎže* on the house, contain the same word twice. The effect of this deterioration is that the etymological interpretation of these postpositions is often difficult or impossible.

The distinction between words of clear origin and atrophied words reduced to the condition of grammatical implements has led the writers of grammars to make a distinction between case-affixes and postpositions. This distinction, although invalid theoretically, has, however, a real basis to this extent that speakers can recognise certain words as having an independent existence, like Kash. *manz* which signifies "the middle" as well as "in"; while others have no connexions, as Mar. Sind. -*lā*, Hin. *ko* to, Braj. *sō*, Hin. *se* with, from; Guj. -*ne* to, Hin. *ne* by. Both classes appear in varying forms in the same or in different languages: Kash. *peṭhⁱ* loc. *peṭhᵃ* abl. *(pṛṣṭha-)*, Mar. *pāśĩ* loc. like Hin. *pās*, but *pāsūn* abl. *(pārśva-) ;* Sind. *sẽ*, Hin. *se*, Braj *sō* by; Beng. *ke*, Hin. *ko* to.

Further it may happen that a postposition is no longer a
substantive or an absolutive (see p. 159-60), but an adjective
p. 182 signifying something like "relating to" and agreeing with the noun
to which the oblique to which it is attached, is complementary.
This is what current grammars call the genitive.

The use of the possessive adjective dates from the middle ages.
O. Mar. (Jñan.) *jayā ceyā indriyā ceyā gharā* in the house of the
organs of whom (the English order is the inverse of the Marathi),
tayāciye diṭhi in his sight, *khapaneyă că găũ* in the village of
beggars.

Tulsi Das: *santanha kara sātha* the company of saints, *jā kari
taĩ dāsi* of whom thou art the slave.

Lal Ded: *gŏra sond*ᵘ *wanun* the word of the master, *dayĕ sanzĕ
prahē* with the love of God (for *santaka* see p. 160).

Modern examples:

Sind. *ghara jo dhaṇī* the master of the house
       *gharan*ⁱ *jo dhaṇī* the master of houses
       mursa jī joe the wife of the man
       *mursan*ⁱ *j ā̃ joy ů̃* the wives of the men
       *priyă sande pār*ᵃ in the direction of friends

Hin.   *kutte kā sir* the head of the dog
       kutte ke sir par on the head of the dog (where the part
       played by *sir* as an oblique is exactly marked by the post-
       position *ke* agreeing with it).

Lakh. *Gopāl kə larikā* the son of G.
       Gopāl ke larikā the sons of G.
       Gopāl ki laūṛiyā the daughter of G.
       Gopāl kē larika ke to the son of G.

Similarly for Mar. *cā (cī, cē)*, Guj. *no (nī, n ū)*, Raj. *ro*, Panj.
dā, Sind. *jo*, Eur. Rom. *ko, kero*, Kash. *hondu* with all the feminine
singulars and plurals (Sindhi uses *sando* <*santaka*-, not *hūndo* <
bhavantaka-), Kash. *uk*ᵘ, *un*ᵘ reserved for masc. sg.; finally *kyut*
noting more particularly destination, cf. Skt. *kṛtya*-. In Bengali
the normally indeclinable adjective explains the ending of the
genitive *-er*, Oriya *-ār*.

The use of this adjective permits the formation of compound
postpositions; just as English has *at the top of* beside *over*, so Hindi
employs *ke ūpar*, the second term of which is a noun, beside *par;*
similarly Sind. *je āge* in front of, before, Beng. *-er bāhire* outside,
-er bhitare inside. This well-developed system of periphrases
p. 183 absorbs a variety of substantives in Hindi, mainly Perso-arabic.

The postposition expressing appurtenance is then an adjective. Now this adjective may have originally been compoundable with the noun complement, which we most often meet with in the oblique.

We still find exceptionally the two constructions in Marathi: *ghar cā* belonging to the household, and *gharā cā* of the house, and in O. W. Rajasthani: *deva taṇai prāsādi* in the temple of God; *devatanā kusuma taṇī vṛṣti* rain of flowers of the gods, and, on the other hand, *caritra suṇyā tasu taṇā* his (3-4) exploits (1) were heard of.

In modern times, the possessive adjective may be attached not only to the oblique, but to phrases already containing a postposition, on the model of the complex postpositions: as you can say in Gujarati *niśāḷ-mã-thī* from inside the school, so you can say *ghar-mã-nī chokrī* the girl in the house, *ā deś-mã-nā loko* the people of (in) this country; and in Marathi *gharĩ-cā* of (in) the house, *tyā divaśĩ-cā* of that day. This is a valuable construction, because it partly compensates for the absence of subordination, about which we shall speak later.

Thus modern inflexion tends to be distributed into two cases, viz: direct and oblique; but it has not reached this point in every case; and, moreover, as the words requiring the oblique are according to the usual rule, suffixed to it, the new inflexion tends to assume once more the appearance of a declension with terminations. One might imagine therefore an evolution in progress, which would end in an old style inflexion added to oblique bases transformed to stems of roots. But the difficulty of this lies in the fact that the possessive adjective is declinable and thus set apart from other suffixes. Now government of the noun expressing itself solely by indeclinable suffixes is very rare: Sgh. *gē (gṛhe)*; Ashk. *wa*; Waig. *bä (bhãvāt?)*; Torw. *se, si*; in a central language, Marw. *rai*, cf. OWR *vrata raha pīḍāī (vratānām pīḍā)*. The system therefore is not yet approaching a stable equilibrium.

ADJECTIVES

Adjectives have no particular formation. They can, like the nouns, have either radical or enlarged forms (adjectives borrowed fromSanskrit and the Muslim languages belong to the first category): Mar. *ūc;* Hin. *ūñcā*, fem. *ūñcī* high.

p. 184   In Braj exceptionally the enlarged form of adjective differs in the masc. sg. from that of nouns: at Aligarh *choḷau beṭā*, at Agra *lauhrau chaurā* younger son.   One is at first tempted to see in this the result of grouping: it is in this way that we find in Nuri the substantive *kajja* a non-Gipsy, on the one hand, and also the participle isolated in its verbal function *nanda* he brought, and, on the other hand, the participle enclosed in a group *nando-m* I brought.   At any rate the formula does not apply to Braj, where the participle functioning as a finite verb has at the end of the group the same form as the adjective: *choḷau beṭā calyau gayau* the younger son went away.   There are here two mixed types of declension; that of the nouns must have been borrowed comparatively recently from another form of speech of the Hindi-Panjabi type.

Concord

In the languages admitting grammatical gender concord in gender occurs in the enlarged forms and also in root forms where the final vowel is preserved: Sind. *umir^i causāl^a* (masc. *causāl^u*) age of four years; similarly Tulsi Das *dāhini ăkhi* right eye, and *sapatha baṛi* great curse, where the adjective alone marks the gender.   Lakhimpuri has preserved this use: *pātar*, *pātar^i* (cf. *pātalo;* derived from *patra* leaf) thin; *nīk*, *nīk^i* good m. f. (Persian); but the vowel is long in the enlarged adjectives: *thorā*, *thorī* little m. f.   Also Kati *ev ḍeger aṛi* a bad boy, *ev ḍegeri juk* a bad girl.

In Bengali refined speech tends to use Sanskrit terminations to suit the meaning: *sundar bālak* pretty boy, *sundarī bālikā* pretty girl; *parama mitra* incomparable friend, *paramā śānti* supreme peace.   In general it seems that the extended use of long forms is modern; Hindi appears to employ radicals by preference in the masculine, where a change of construction permits a doubt; *adhcandar* half moon, a Sanskrit compound, but *ādhā cānd* with the tadbhava; *yĕ bāt sac hai* this story is true, but *saccī bāt*. A word like *sab* all, is removed from the category of adjectives to join that of numerals.   We catch a glimpse of a search for clearness and distinctness in *dūr* far, but *dūr kā, kī* distant m. f.; *kāl* time, famine, *kālā* black (exceptionally *kāljuārī* inveterate gambler.

As the adjective is formed like the substantive, it might have
p. 185 been expected that its inflexion should be parallel with that of the substantive and that concord can take place between radical and enlarged forms: Hin. *mīṭhe bacan se* with a sweet voice; *kāle ghoṛe ko*, Mar. *kālyā ghoḍyā-s* to the black horse; *thaṇḍ pāṇyā nẽ*

with cold water.   Actually the complete concord, which is the norm in Sanskrit, is only met with in certain languages: Kashmiri (*baḍis anĕgaṭis manz* in great darkness, fem. *bajĕ garībiye manz* in great poverty, *bājhau mālau* by great garlands); Sindhi (*cothẽ ḏĩhā* on the fourth day, *keṭirᵃ umiriᵢ jo* (masc.) of what age, *thoran ḏĩhani khā po* after several days); Panjabi and Gujarati (omitting the suffix -*o* of the plural of the noun).   Lakhimpuri offers the exceptional case of noun inflexion atrophied in the presence of normally declined adjectives.

But even in Sindhi we see the oblique singular replacing the plural: *kūṛe* (or *kuṛaniᵢ*) *nabiuniᵢ khe* to the false prophets.   It is also the Hindi usage: *kāle ghoṛe ko, kāle ghoṛō ko* to the black horse, to the black horses; *kālī billī, billiyō ko* to the black cat(s).   At the bottom of this simplification we catch a glimpse of a phonetic dissimilation, which took place before the period in which the final *ă of the oblique plural was dulled: **kālayă ghoṛayă*> **kālaya ghoṛayā*>*kāle ghoṛa(y)ū* (Braj *ghoṛaū*).   That it is actually an alteration due to the grouping, is shown by the fact that it is produced not only in the type *pīle phūlõ-wālā gandā* jasmine with yellow flowers, but with substantives: *ham bacce logō ko* to us children, *laṛke aur laṛkiyō ke liye* for boys and girls, and particularly with a feminine noun *bāṭe bāṭõ mẽ* while speaking, in the words (apparently *bāṭe* for *bāṭẽ* dir. pl.).   This last example helps us to understand how the oblique singular may have been conceived as a direct plural in the masculine, *ghoṛe* having these two values.   We must also take into account its grouping with pronouns: *in logō ne* by these people, against *inhõ ne* by them; and *ham* which may be direct or oblique; *ham log* we, *ham logō ne* by us.   *Kālī billiyō* can then be explained equally well by reference to *kālī billī* obl. sg. resembling the direct case or to *kālī billiyă* dir. pl., the latter, moreover, having been formed in accordance with the principle of dissimilation of words in groups.

Elsewhere the reduction of the inflexion of the adjective has operated in another way.   European Romany has like Hindi *kale manušes, kale manušen* black man, men, but the masculine form has encroached further on the feminine plural.   In Marathi p. 186 the same thing has happened, but the feminine singular also has the masculine form.

In Shina and Gawarbati the adjective agrees in gender but has no oblique form.

Thus the inflexion of the adjective tends to be reduced in various ways and the history of this movement is still incomplete.

7

Comparison of adjectives

In the short list of suffixes given above there was no mention of comparative or superlative suffixes. Sanskrit possessed two sets inherited from Indo-european; the one *-īyāṃs-* and *-iṣṭha-* added directly to the root, and the other *-tara-* and *-tama-* of adjectival origin. The latter set, which is more clear-cut, was the more usual in classical Sanskrit and apparently persists in Prakrit. But it is instructive to find that *-tara-* alone is productive in Pali and Asokan (the enlarged adjectives in *-stā* in Ashkun and Waigeli do not therefore contain the superlative suffix, but as Morgenstierne has seen, must be juxtaposed forms comprising a suffix related to the root *sthā-*).

But the comparative in suffix form was itself in danger of extinction. Already in relatively late layers of Pali we find a new formula, namely a positive adjective with the object of comparison in the ablative: *santi te ñātito · bahū* they are (more) numerous than (from) the relatives (Mahāvaṃsa, a relatively late text). This formula coincides with the Dravidian idiom and is found again in Munda, where perhaps it is due to Indo-aryan influence; for it is not found in Sora and moreover Munda uses an intensive infix.

The expression signifying "from" naturally varies according to the particular language: Hin. *se*, Guj. *thī*, Panj. *tho*, Chat. *le*, Beng. *hoite*, *thākiyā*, Shin. *žo*, Torw. *kejā*, Ashk. *tai*, Sgh. *ṭa*, etc. There are other expressions: Kash. *niše* near, *khoṭa* a casual form of the participle of *khas-* to mount (of Iranian origin, see Horn s.v. *xās-*); Beh. and O. Awa. *cāhi*, Beng. *cāhiyā* looking at, Nep. *bhandā* speaking of.

The old suffix of the comparative seems only to survive in Lahndā *cang-erā* better, rather good (one can hardly count the Guj. *anero* other, Skt. *anyatara-*).   European Romany has borrowed the corresponding suffix of Iranian and combined it with the negative: *šan tū barvaleder na mē* art thou richer than I? and even with the ablative like Indian: *barĕder na tute* greater not from-thee.

The relative superlative is similarly expressed by the positive, but is accompanied by words signifying "more than all" or "amongst all", cf. already Pa. *etesu kataraṃ nu kho mahantaṃ* among them (all) which is then the great(est)?   Hin. *yĕ ghar sab se ūncā hai* this house is high from all, *in perō mẽ baṛā yehi hai* amongst these trees it is the high(est).

As for the absolute superlative the popular formula is reduplication, Hin. *garam garam dūdh* very hot milk, Beng. *bhāla*

bhāla kāpaṛ very fine clothes. An adverb meaning much can also be used: O. Mar. *thor*, Hin. *bahut, nihāyat*, Kash. *sĕḷhā*, Sgh. *itā ;* rarely an adjective with the meaning of great can be prefixed: Hin. *baṛā ūcā* (great) very high, Mar. *moṭhī lāmb kāṭhī* great-long stick, very long, cf. the complex adjective *cāṅglā śahāṇā* well-advised, very wise. Details are immaterial; the important point is that there is only one form of adjective.

The article

In Sanskrit there is no article, cf. p. 128. However the anaphoretic force of the pronoun *sah* tended to disappear quite early and in Epic and particularly in the Buddhist texts, it often functions as a true article. This position midway between article and demonstrative is still met with to-day in more than one language, but European Romany alone of all the Indo-aryan languages has a true article evidently due to Greek influence. The Indo-aryan noun is therefore as a rule apathetic about determination.

On the other hand, there is a tendency to denote non-determination by the representative of *eka-* one; this usage goes a long way back: from the time of the AV the plural *eke* signifies "some, certain"; the epic and pre-eminently the Jatakas furnish a number of instances of *eka-* with an indefinite force. Nowadays "one" must be expressed and it is suffixed in Singhalese (*minihek* a man, *gamak* a village; it carries the inflexion of the group) and in Nuri (*jūri-k* a woman, *jūri* the woman, distinct from *ē-jūri* that woman); in this case, of course, the substantive without the suffix has a definite force. In Kashmiri in which *-ah* suffixed to the indefinite nom. sg. is not compulsory, the bare substantive is not *ipso facto* made determinate.

There exist, however, indirect methods of determination. In Hindi, Lahnda, Sindhi, Bengali and Tirahi (*LSI*, I, ɪ p. 271) the definite object is placed, not in the direct case, but in the oblique followed by the postposition, signifying "to": ˌHin. *pānī mez par rakho* put water on the table, *pānī ko thaṇḍā karo* cool the water; p. 188 *koī naukar lāo* bring a servant, *naukar ko sāth lāo* bring the servant with you; Sdh *kaṇik khe bhāṇḍ mẽ mere rakho* collect the grain and bring it into the barn. The rule only applies in Bengali to animate nouns and consequently to the names of persons: *goru carāy* he pastures cattle: *goruṭā ke bāṃdho* tie up the cow (*ṭā* has already a determinative force, see below); O. Beng. *Radhā ka dekhiāṃ* seeing Rādhā, *baṛāyi ka chāṛī* leaving the old woman; similarly

in Gujarati: *hū Gopāl-ne kārkūn ṭhervū chū* I appoint Gopal clerk, *rai-rāk-ne samān dṛṣṭie joto* he would look on rich and poor with impartial eye, *bhūḍo-ne cārvā sāru* for feeding the pigs; in Marathi *mī tulā ek rājā dākhvitõ* I am going to show you a king, but *āpaṇ rājā-lā jāūn pāhūṃ* let us go and see the king; in Awadhi (Lakhimpuri) *mardan kə ta māḍḍāreu* you have already massacred the men.

In Kashmiri and in Eur. Romany the oblique alone has the force of a dative; it also serves in Kashmiri as a direct object in the case of persons: *wāzas mārān* beating the cook, in Romany for persons and less strictly for animals: *and pānī* bring water, *kūr ī ĵukles* strike the dog, *and dui gren* bring two horses (indeterminate); and on the other hand *čū mo grai* lead my horse; *khārdas ī mūršes are* he called the man inside. In Nuri the inanimate direct object has no ending, while the animate object is in the oblique. The same is the case in Singhalese.

Thus we see the ideas of definite and animate meet; historical details are not available. It is possible that the result has come about from the absence of a direct object in the personal pronouns.

In Maithili the enlarged form which is as a rule emphatic, can assume a force equivalent to the article: *nenᵃwā* the boy, is familiar or contemptuous; but *ghoṛᵃwā* simply means the horse in question.

In Chattisgarhi *har(apara-)* other, suffixed to a noun, means "others", etc.: but this meaning is expunged in *omāṃke ek har* one of them; there are also *õhar* he, *inhar* they; and it ends by being used as an article in *ceriyā har* the maid, *sūā har* the parrot, *gar har* the neck (Hiralal, p. 37, 41).

To the extent that it is a question of the particular use of simply emphatic processes, numeral nouns can be considered as determined in much the same way: Hin. *donõ* the two, *tīnõ* the three, cf. *saikṛõ* hundreds (forms of obliques), cf. Chat. *duno*, *tinno*, *saio* and *sabo* all, Maith. *dunᵘ*, Aw. *dou*, *cāriu*, cf. *ekau* one also, *ghar* or *gharau se* from the very house, OWR *bihu*, *trihū̃*, *cihū̃* and with emphatic *-i aḍhārai lipi* the 18 alphabets, Aw. *kuttai*t he dog. Mar. *doghe*, *tighe*, *caughe* (declinable), Bhoj. *dogo*, *tingo* are obscure, but are formed on the same principle.

Bengali has a very peculiar idiom, the suffixing of determinative particles to the noun. *Ṭā* denotes large or coarse objects, *ṭī* small, delicate, pleasant things: *mānuṣ* man, *ek* or *ekṭā* or *ekṭī mānuṣ* a man; *mānuṣṭā* or *-ṭī* the man. Similarly for flat and elongated objects: (from P. <u>khāna</u>) *bal khānā* the book, *kāparkhāni* the (pretty) piece of material, and for objects resembling a stick (*gāch* tree) *lāṭhi-gāch* the stick, *charī-gāchi* the walking-stick,

darī-gāchi the string. Similarly in O. Bengali: *bāṇa goḷā* the arrow, *bāṃsī guṭi* the flute, cf. with nouns of number Maith. *duh ū goḷā;* this word which is used in the same way in Oriya, has now in Bengali only the meaning of "together, a whole". Limited as it is to the eastern group, this usage betrays itself as the remains of a substratum. That classifiers were changed into articles in Siamese is no accident (Communication from Burnay to the Société de Linguistique, *BSL*, XXIX, p. xxvi).

PRONOUNS

Personal pronouns

While the nominative and accusative of nouns merged into a direct case, the nominative and accusative of pronouns had originally different stems. But influenced by noun stems and also by other pronominal stems, notably the relatives, which were regularly in opposition to them, the demonstratives often took the nominal type of inflexion. The 1st and 2nd personal pronouns, as they did not relate to things, felt this process less and the subject case continued to be in opposition to the others. Then the direct object was in danger of becoming merged with the indirect cases. This is what happened, for example, in Ashkun: *ima tō lānumiš* we shall beat thee, like *ai tō pala prēm* I give thee an apple, or *tō-a bra* thy (of thee) brothers. The beginning of this evolution goes back, no doubt, to the Vedic use of the enclitics *naḥ*, *vaḥ* and to the use of *me*, *te* with an accusative as well as a genitive and dative force, which is restricted in Sanskrit, but well attested in Middle Indian. We have already seen that an accusative *mamam* beside *mam* was created in Early Middle Indian on the lines of the genitive *mama*. Prakrit added *maham* after *maha* and finally Apabhraṃśa has *maiṃ* (Hin. *maī*) which is an instrumental.

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This confusion of the accusative with the obliques became in its turn troublesome to the languages in which the accusative of nouns was identical with the nominative. This was perhaps one of the determining factors of the extension of the attributive postpositions signifying "to, for" to the personal pronouns of the direct object, when the use of postpositions became widely spread. This use must have, in its turn, strengthened the tendency of syntax to make a general distinction between animate and inanimate nouns (see above, p. 188).

On the other hand, dominant forms tend to absorb nominatives. Hence in Pali there are already *amhe*, *tumhe* (Asokan *maye* from Pa. *mayaṃ* and *tu(p)phe*) which gave greater regularity to the plural in the Prakritic languages. In the modern languages Mar. *mī*, Hin. *maĩ* etc., the usual instrumentals with verbs in past tenses, have become direct cases (see below).

Singular

1st person

The representative of Skt. *aham* or rather of Middle Indian *ahakaṃ* still survives in a certain number of languages: Braj *haũ*, O. Guj. *hãu* becoming *hũṃ*, Malw. Marw. *hũṃ*, Kon. *hāṃv*, O. Panj *haũ* replaced by *maĩ*, Sdh. *āũ*, *āṃ*; Pashai, Gawb, Tor., Kal, Tir, *ạo*, Kho. *āwa* (Do Kati *uz*, *ūc̣*, Pras. *unzū* represent *ajham* as has been supposed?) Ashk. *ai*, Waig. *ye* are perhaps demonstratives; Kash. *bŏh* is obscure.

Panj. *maĩ* (and Lahnda *mäṃ*) is originally an instrumental (already recorded in Apabhramśa as an accusative). The same form is found in Braj, Jaipuri, Mewati and Awadhi; old Maithili, Bhojpuri (when speaking to inferiors) have *mẽ*. And no doubt Mar. *mī*, Nep. *ma* (nasalised in pronunciation) go back to this form. The eastern group has an analogous form based on the oblique *mo-*: O. Beng. *moe*, Beng. *mui*, Ass. *mai*, Or. *mū*. Eur. Rom. *me*, Nuri *ama* opposed to the common plural *ame*, Shi. *ma* are far from clear. In any case they also come from an oblique form. Panjabi distinguishes agential and nominative *maĩ* from the oblique *mai*, *me*. Gujarati has also agential *mẽ* opposed to the oblique *ma-*, *maj-*, *muj*.

Several forms originate from obliques.

Nuri *-m* (beside *ama* which resembles the nominative), Lah. *-m*, Sdh. *-mⁱ*, Kash. *mĕ* *-m*, Pash. *me*, *-m*, Tir, Tor. *me*, Pras. *-m* may represent Skt, Pkt *me*. The forms with a long or a retained vowel would be archaisms explicable in pronouns. But Torwali has acc. *mā* beside nom. *ā*, *ai*, obl. *me*, which may perhaps be the old genitive *maha* preserved as an oblique in O. Mar. *mā-*, Guj, Mal, Jai. *ma-*, Sdh. dial. *mahⁱ*, Konk. *mā-* beside *moj-*, Kho. *ma*, Tir. *ma* beside *me*; cf. Ashk. *ima* genitive (but what does obl. *yũṃ* represent?). Besides *maha* Apabhraṃśa had *mahu*, which is recognisable in Sdh. *mūṃh*, Jai. Mew. *mũṃ*, Braj, Bund., east Hin, Bih., Beng, etc. *mo-* (Braj, Bagheli, Maith., Bhoj *mohi* have the

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nominal oblique suffix -*hi*). The other genitive Pkt. *majjha* is retained in *mājh-*, Guj. *maj*, Kon. *moj-*, Mew. *muj*, Braj and Hin. *mujh* (vowel influenced by *tujh*).

In the North-west Waig. *īṃ* confronting nom. *ye*, Kati *īṃ* and even Ashkun *yūṃ*, gen. *ima* remind one rather of *ayam* than of *aham*. The confusion is not unknown in literary Middle Indian. At all events the acc. -*č*, -*ī*, -*a* my m. f., in Kati cannot be pronouns. The pronouns have enclitic forms. The oblique forms have been cited and besides these we find Sdh. -*s^e*, Kash. -*s* which should represent *asmi*.

Singhalese has the subjective *mama*, which curiously recalls the Sanskrit genitive, beside the oblique *mā*. Pashai *mam* agential beside oblique *me* is this same form or is derived from it.

2ND PERSON

Mar. Kon. Sdh. Lah. Panj. *tūṃ*, Guj. *tū*, Aw. *tū*, Eur. Rom. *tu*, Nuri *atu* present no difficulty. But, while noting that Sgh. *tō* may rest on *tava*, we would shrink from a decision on the original of Kati *tyū*, Kho., Gaw, Kal. *tu*, Pash. *to*, Tor. *tu* (beside *ta*, *tai* formed on *ā*, *ai*), Tir. *tu*, *to*, Shi. *tu*, Kash. *čah*.

In India proper the most frequent types of oblique are *tujh-* and *to-* resting on Pkt. *tujjha* and Skt. *tava*. Pash. -*e* (*dand-e* thy teeth), Nuri -*r*, Sdh. -*e*, Lah. -*ī* appear to go back to Skt. Pkt. *te*; but there is also Pkt. *tae* which is recalled by O. Kash. *tŏyĕ*, mod. *ce* (but enclitic -*th*, -*y*). Similarly Kal. *tai*, Panj *tai*, Lah *tä*. We can come to no decision about Tir. *te* (nom. as well as agent), Tor. *te* distinct from gen. *či* (cf. Kati *ptā-š* given to thee, opposed to *tot-čī* thy father) and of acc. *tā*. Opposed to *unzū* I, Prasun has *iyū*, obl. *ī-* thou, which resembles a demonstrative pronoun, like, conversely, Kati *īṃ* I, opposed to *tu*.

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The enclitic forms with subjective force, Kash. -*kh*, Lah. *ē̃*, *ī*, Sdh. -*ē̃*, fem. *ā* are obscure. The Singhalese oblique has a unique peculiarity in its ability to express the gender of the person addressed: masc. *tā*, fem. *tī* (*tī gē ata* thy hand (of a female), *tā gē ata* thy hand, male or common).

Plural

In the 1st person Skt. *vayam* persists in Shin. *bẽ* and in some other languages in the same area according to Morgenstierne, Ind. Ling. V (1935), 360. The other forms are classed generally according to the phonetic development of the Sanskrit group, sibilant followed by nasal, in *asmat*, *yuṣmat*, etc.

The Prakritic group has *mh (hm)* in all cases: Mar. *āmhī*, obl. *āmhā; tumhī* obl. *tumhā;* Guj. *ame, am; tame, tam;* Raj. *mhe, mhā; the, thā;* Braj *ham, hamaũ; tum, tumhaū;* Beng. *āmi, āmā; tumi, tomā;* Nuri *ame, menatme* (the oblique *atran, -ran* is formed from the oblique singular); single forms: Hin. *ham, tum(h);* Nep. *hamī, timī;* Maith. *ham, tōh;* Rom. *amen, tumen.*

In the western languages *m* after sibilant gives *v;* whence **asve*, while **tušv-* results in **tuhv-*: Kash. *asi*, obl. *ase; tŏhī* obl. *tŏhĕ;* Sdh. *asīṃ*, obl. *asāṃ, tavhīṃ* obl. *(t)a(v)hāṃ;* Shi. *as* oblique of *be, cho.*

In Panjabi and in Lahnda, whether the two groups have been treated the same or the second person has been assimilated to the first, we have Lah. *assīṃ, tussīṃ*, Panj. *asīṃ, tusīṃ*, obl. *asāṃ, tusāṃ.*

Singhalese has *äpi*, obl. *apa* we; *tepi*, obl. *topa* you (type **apphe* already found in Asokan, see p. 147).

A treatment **tuhv-* distinct from *ahm-* perhaps explains Tir. *mēn* obl. *myā; tā* Tor. *mo: tho, to* Garwi gen. *mō:* gen. *thā.*

The difference between hiss-sounds and hush-sounds no doubt explains Kati *ema* we, *šā* you (a form Iranian in appearance, but not found in the neighbouring Iranian languages).

But in the North-West we meet with obscurities: Kho. *ispa (asmat?), pisa*, old *bisa (vaḥ+-smat?);* Kal. *ābi* we, you, obl. *homa* (we), *mīmi* (you). This last group recalls Garwi (1st pers.) *ama* (2nd) *me;* Pash. (1st) *hama*, (2nd) *(h)ēmā.* We have a glimpse of intruding demonstratives: Waig. *yema, yuma* we, plural of *ye*, obl. *īm* are reminiscent of Skt. *ime*, while the plural of *tu*, which is *vī, vīma* might well carry on *yūyam* (or *vaḥ* which might have, on the other hand, driven out *vayam?*). Conversely, in Prasun opposed to *wī* obl. *yam (yūyam, yuṣmat)* we find true pronouns in the 1st person: sg. *unzū*, obl. *um*, pl. *asē*, obl. *as.*

In the languages in which the complement of the noun is denoted by an adjective of possession consisting of a noun with a suffix, the relation of genitive in pronouns tends to be expressed by a derived adjective. Marathi makes *mājhā, tujhā* my, thy, in the singular from the oblique stems *mājh-, tujh-*; but in the plural it has *ām cā, tum cā* like the nouns.

The most usual type of adjective rests upon a derivative of the genitive, which is not Skt. *mamaka-*, but on an analogous principle **mamakara-* or **mahakara-* (Apa. *mahāra*) crossed in the course of time with the oblique; Jai. Mal. Mar *m(h)āro*, Guj. *māro;* Braj *meryau, merau*, Mew., Kanauji Nep. *mero*, Panj. Hin. *merā*, Eur. Rom. *mīro* (Nuri uses the true genitive); eastern Hin. Maith, Beng. *mor.*

Sindhi treats all pronouns like nouns. Kashmiri does the same and uses sometimes the suffix of masc. proper nouns: *myôn^u*, *sôn^u*, *chyôn^u* like *Rāmun^u* and sometimes the ordinary adjective of possession : *tuhondu* like *ċūrasond^u*, *mālihond^u*.

The personal pronouns reveal more clearly than any other section of grammar that the literary languages of Middle Indian represent only one part of the Indian linguistic group. The starting point is the same for the whole group, but the phonology, among other things, has subsequently isolated Singhalese on the one hand and the Hindu-kush dialects on the other.

Respectful forms

The personal pronouns have not in practice everywhere preserved their etymological values. In India social relations, within or without the family, impose lights and shades, which at once have an effect on vocabulary and grammar. Thus the use of "thou" is naturally forbidden to one addressing a single respectable person. "You" (sg.) is expressed in certain cases and was already expressed in Middle Indian by the pronoun in the 2nd plural, in other cases by a noun such as *maharāj, huzūr, sāheb* etc. (cf. Skt. *bhavant-*) constructed with the 3rd person, generally in the plural and finally by the representative of Skt. *ātman-* signifying originally "soul, person" and otherwise used as a reflexive pronoun in the three persons, meaning "ourselves, yourself, himself" as the case may be and constructed in different ways according to the language.

In Singhalese *tō* is haughty and discourteous: *umba* or *nuba* is used by equal to equal (with the 3rd person); *tamā (ātman-)*, *tamusē* are respectful. They can be strengthened by *vahan sē* (shadow of the sandals).

In Marathi *āmhī* is to *mī* as English *we* to *I*. Similarly *tumhī* you, is employed, when speaking to someone, who does not belong to the family or is not an inferior. But in addressing a superior *you* is expressed by *āpaṇ* with the verb in the 2nd pers. plural. Similarly in Gujarati adults are addressed as *tū* only among rustics; *tame* is the ordinary form. *Āp* and the 2nd pers. plural are used to express respect.

Hindi observes the same niceties, but constructs *āp* with the 3rd pers. plural. It is inclined to use *ham* (with the verb in the 1st plural) to indicate a single individual with no shade of ostentation. Similarly in Lakhimpuri *ham kahen* is commoner than *mai kaheũ*. *Tui* is used to little children and young servants,

but *tum* to a son or an elder daughter. *Āpu* is rare and felt to be a foreign form; it is constructed with the 2nd pers. plural.

Chattisgarhi ignores *ātman-*, but makes a curious use of *tūh*, *tūm* as a term of respect in place of *taī*, particularly in intercourse between related families; the plural "you" is *tum*. Here the influence of the neighbouring Bihari can be felt. There a new system has been elaborated. In Maithili the old pronouns *mē*, *tū* have disappeared in favour of *ham*, *tŏh*, for which a new plural has had to be made by adding the word *sabh* all, which is used to form all the plurals in the language, even those of the demonstrative (*i* this one, *ehⁱ* to this one; *i sabh* these (pl.), *ehⁱ sabh* to the former (pl.); *ekar* his, *ehⁱ sabhak* their); then *hamsabh*, *tŏh sabh*, without prejudice to the honorific pronouns *ahām̐*, *apane*, etc.

In Bhojpuri the old pronouns have not disappeared. The result is a complex system: *moi* "I" (inf.) *mē* (sup.) *ham;* "thou" (inf. and sup.) *tū*, *tē;* "we" (inf.) *hamnīkā* (sup.) *hamram;* "you" (inf.) *tohnikā* (sup.) *tohran;* to which are added *apne*, plur. *apnan* and *rauwām̐* or *raurā (rājarāja)*, plur. *rawan* or *rauran*.

In Bengali, where *mui* has become vulgar and *tui* impolite (but permissible for inferiors in age or condition), the ordinary form is now *āmi* or *tumi*. A new plural *āmrā*, *tomrā* has had to be made, to be reinforced in course of time in *āmrā-sab*, *āmrā-sakale*, etc. Moreover, there is a polite form *āpni* (which has taken the pronominal ending), for which a plural *āpnārā* has been constructed. Similarly in the third person *se*, pl. *tā(hā)rā* has a polite form *tini* sg., *tini* sg., *tām̐(hā)rā* pl. When persons are concerned, the near demonstrative is *e* in the singular, *ini* respectful, with a common plural *ihārā*, and *enārā* respectful. The remote demonstrative is *o*, and *uni* respectful, with common plural *ūhārā* and *onārā* respectful. Oriya has an analogous system.

In Nepali *hāmi* serves for the honorific singular as well as for the plural, hence the formation of a new plural *hāmi-haru* we, equivalent to *hāmi*. In the 2nd person *tã* is familiar, *timi* (with the verb in the plural) less so. The respectful form is made by adding **āp-* to the singular form, hence *tapāī* which would seem to mean "thyself", but is, in fact, "you, your honour". A plural *tapāīharu* has been made of it.

Finally we may notice the attempts made to distinguish "we" including the person addressed from "we" exclusive. This shade of meaning is rendered by a word derived from Skt. *ātman-* self, regarded as an honorific of the 2nd person: Mar. *āpaṇ*, Guj. *āpaṇe* "we" including "you" are opposed to Mar. *āmhi*, Guj. *ame* "we"

excluding "you". *Apanā* is used similarly in Awadhi. In Marwari *āpāṃ* is opposed to *m(h)e* and the derived adjectives *āpṇo, -ṇū, āpāṃro* (opposed to *m(h)āṃro*) are also inclusive. In Lakhimpuri *āpnā*, in Sindhi *pãhăjo* our (ours belonging to you and us) and in Marathi *āplā* belonging to you and us, opposed to *āmcā* ours alone, have the same force.

Demonstratives and anaphoretics

The formation and inflexion of pronominal adjectives lack unity. We can recognise the old stems which served Sanskrit and Middle Indian, and some of these stems preserve the opposition of the nominative stem to the other inflexions. But we also find stems unknown to Sanskrit and of obscure origin. On the other hand the old inflexions are often assimilated to the inflexion of the noun, no doubt under the influence of the interrogatives and, especially, the relatives which are normally opposed to them.

p. 196   The Pkt. stem *so: tassa* (encl. *se*) is continued to the present day in various languages: Gawar. *se: tasa* (agent. *ten*); pl. *thēmī; tasu (te-ime, tassa+teṣām?)* Waig. *se: tašo(seo)*; pl. *te: tēsa* Pash. *ū-s^a: u-lī(s)*; pl. *ūt^a: ūte(nā)* Kal. *se*, fem. *sa: tāse, tāa*; pl. *teh, šeteh: tāse, šetāse* Kho. "that" *ha-sa: ha-toyo*; pl. *hate-t: hate-tan.*

Brokpa of Dah *so*, fem. *sā: tes*; pl. *te: ten.*

Kash. *suh*, fem. *sŏh, sa: tas* (and *tami(s)*); pl. *tim*, fem. *tima: timan*; inanimate *tih: tam^i, tath (tatra?).*

Braj *so: tasu, tis, tā*; pl. *te* (and *so*): *tin.*

Nep. *so: tas*; Pl. *ti* and *tini*, both direct and oblique.

Kumaoni (persons) *so* and *tau* (things) *te: tai, te*; Pl. *te* (and *so, tau*): *tan.*

Awadhi *se* (and *taun*): *te*; pl. *te: ten(h).*

(Tulsi Das *so: tā, tāsu, tāhi, tehi*; pl. *te* and *tinh: tinh-*: mixtures of Braj forms).

The beginnings of unification are seen already in some of these languages. The nominative plural is assimilated to the singular in Panj. *so: tis* pl. *se: tinh-*, Sdh. *so* (f. *sā*): *tāh* pl. *se: tan-*, Torw. *se: tes* pl. *se.*

Elsewhere it is the oblique stem which invades the nominative singular and the result is assimilation to the nouns. Torw. *te* is less frequent than *se*, pl. *tiyā:* Mar. *to* (in which the final vowel is archaic), Guj. *te*, pl. *teo, te* obl. *tem-*; Marw. *tiko* beside *so*. Finally Eng. Rom. *la, li*, pl. *le* from *les (tasya).*

In the above paradigms Gawarbati and Kashmiri show intrusion

of the *ima-* stem. The first of these languages has even a demonstrative in which the grouping of stems closely recalls that of Sanskrit: sg. *(woi): asa,* agent. *en ;* pl. *eme: asu* which is almost an exact reproduction of *ayam: asya, ena ;* pl. *ime: eṣām (a-* taken from the singular). The stem *im-* which remained alive in Middle Indian to the extent of forming derivatives like Pkt. *imeyārūve*

(-rūpa-) Apa. *imerisa* (after *erisa*) such, appears also in Sgh. *me-* (from *imaṃ etaṃ,* H. Smith) and in Kash. *yim,* fem. *yima* animate plural (inan. *yih*) of *yih,* and sg. obl. *yimis,* agent. *yimi* (Pkt. *imassa, imeṇa*). In Kashmiri again it enters into combination with other stems in the plural *tim,* fem. *tima* mentioned above and in the relative *yim,* fem. *yima.*

A combination of the same kind probably occurs in Prasun *su: su-miš;* pl. *mū (amukāḥ): mišin.* The stem *amu-* suggested here is also recognisable in the Kashmiri defective pronoun *amis* (dat.), nom. pl. *am,* fem. *ama:* obl. *aman;* cf. Skt. *amuṣya,* pl. *amī.* Only Prakrit has attempted a nominative singular built on the same stem, but it is very rare. Further comparison may be made of Kho. acc. sg. *hamu,* pl. *hamit* (nom. sg. *haiya*); Wai. obl. pl. *amī* attached to sg. *ī;* Tor. *me* pl.; and finally perhaps Kati *amnā: amnī* plural of *inā: inī.*

The most frequent non-alternating stems are on the one hand *e-* and *i-,* and on the other *o-* and *u,* the first preferably expressing nearness, the second remoteness (in Kashmiri there is a triple scale: *yih* this one, *huh* that one, *suh* that one over there).

(i) The first group comes from Skt. *eta-,* Pkt. *ea-,* the oblique of which has probably come under the indirect influence of the stem *ki-* cf. also the relatives (the *i-* stem had no genitive: Skt. *ayam, idam: asya*). The stem has been entirely normalised in Guj. *e,* pl. *e-o,* the *o* having been borrowed from the noun (see, p. 169); in Beng. sg. and pl. *e ;* obl. sg. *ihā,* pl. *ihāṃ.* It is declined in Tor. *he: es-, is-* pl. *iya: iyā;* Lah. *e(h), ī: is, ih, īṃ* pl. *e(h)ī(h): inh-;* Panj. *eh, ih: es, is, ih* pl. *eh, ih: inh, eh;* Braj *yah: yā, is* pl. *ye: in(h)* Sdh. *h-e, h-i: hinᵃ hīᵘ, hīᵃ* pl. *he, hī, hin(an)ⁱ.*

The same stem is probably found once more in forms other than the direct singular of Shi. *o,* fem. *es:* obl. sg. *ēs,* plur. *ēi: ain.* In Nep. *yo: yes, yas ;* pl. (in): *in,* the direct case of the singular appears to be an enlargement, cf. Pashai *yo* (obl. *mī-*).

Declined as nouns are Sgh. *ē:* pl. *evhu: evun.* Waig. *ī* is indeclinable.

(ii) Sgh. *ū: uhu*   pl. *ovhu: ov*
      Lah. *o, ū(h): us, uh, ūṃ*
      Panj. *oh, uh: as, us, ũ*   pl. *oh, uh: unh*
      Braj *wo, wuh, wah: wā, wāhi, wis*   pl. *wai, wa: win-, un(h)-*
      Sdh. *hō, hu, huā: hun*[a]   pl. *hō, hū, hoe: huna(an)*[i]
      Nep. *u: us*   pl. *un-: un-*
      Beng. *o, ui, ohā*   O. Mag. *uhā, uni: ō.*

We find as well Pras. *uū* this; Kash. masc. sg. *huh*, pl. *hum*, obl. *humis*, pl. *human;* Garw. *woi* (cf. the emphatic Beng. *o-i?*), and particularly Eur. Rom. *ov* fem. *oi*, pl. *o-le*. It is doubtful whether Apa. nom. acc. pl. *oi* and Nuri *uhu*, fem. *ihi* belong here.

The parallelism of the two lists will be noticed (similarly in Rajasthani, see *LSI*, IX, II, p. 9); it suggests the probability of various re-formations and explains how there is no clue to the second list. It is tempting to suppose that the Indo-iranian stem *ava-*, a trace only of which remains in Vedic, has survived (would it have been driven out by *āvám* in this dialect?). It may, moreover, have blended with *amu-* in which the intervocalic *-m-* opened and vanished (see above, p. 197, regarding the persistency of the *amu-* stem). It is equally possible that all these forms come from Iranian, v. p. 149 and Av. *ava-*, Pers. *õ* he, that one.

The *a-* stem which is implicit in gen. *assa* and the Pkt. instrumentals *eṇa, ehi* was established in the nominative, but was altered in appearance in the process. It is either indeclinable as in Guj. *ā*, nearly so in Panj. *āh* and certainly in Tor. *ā*, nom. sg. and pl. only (note the lengthening due no doubt to analogy with *a(ava)* balancing with *e(eṭa)* and confirmed by Apa. *aa-*); or it is enlarged and produces a pronoun declined like a noun: Mar. *hā, hī, hẽ*, obl. mas. sg. *yā, hyā*, pl. *yāṃ, hyāṃ;* perhaps Gk. Rom. *-av*, fem. *-ai ;* pl. *-al*.

Not only the form but the meaning of this stem is ill-determined; in Gujarati, Panjabi and Romany it designates the near object. In Shina on the contrary *o*, fem. *e* means "that one", "this one" being *anu*.

Does this last stem preserve another earlier one? In actual fact the *ana-* stem is rare in Indo-iranian and in India it gives hardly more than the Pkt. instr. *aṇeṇa*. The *ena-* stem, which seems specifically Indian, is never subject in Sanskrit. It is enclitic in Middle Indian and is found generally without initial vowel, its acc. pl. being *ne*. In cases other than the nominative Prakrit has the *-ṇa-* stem, possibly recognisable in Kati *ine* this

one (according to Morgenstierne *nyi*), in village Kashmiri fem.
nŏh (masc. *yih*) this one, obl. *nomi(s)*, pl. *nom, noma*, obl. *noman*
and in Shina *(a)nu* this one, fem. *(a)ne*, pl. *ani(h)*. This would
be another archaism.

Finally there is a stem in -*l*-, which we might consider as Indo-
european, although the Latin group *ille, ollus*, Irish *all* remained
alive only in Italo-celtic (Brugmann, *Grundriss*, III², p. 340):
.Waig. *ali*, Tir. *lē, lā*, Pash. *elᵃ*, Pras. *esle* (without prejudice to the *l*
treatment of intervocalic -*l*-). Is is the same as that found with
the long grade of the Lat. *ōlim* in Skt. *ārāt, āre*, whence Pali
ārā ārakā at a distance, and Sgh. *ara* "ille"? In any case it
would be unwise to associate with it Shina *ro*, fem. *ri*, which must
be an abbreviation of the dialectical form *pero*, cf. also Palola *aṛo*.

One noteworthy point is the presence of a non-etymological
aspirated consonant in many of the above-mentioned pronouns
and in some others. Thus Mar. *hā*, Brokpa *hāho*; Kho. *ha-iya*,
acc. *hamu*, pl. *hamil*; *hasa*, acc. *hate, hatoγo* pl. *hatet*; Nuri *aha*,
uhu (proclitic), *ahak* that one (indeclinable), the particle *ha*
indicating the near demonstrative; Sgh. *hē* or *ē* he.
One grammarian notices a nom. sg. masc. *aho* in Apabhraṃśa.
So far as this form exists, it may derive from the indeclinable
Pkt. *aha*, in which Pischel saw the representative of Skt. *atha*.
This interpretation would well account for the part played, at
least, by initial *h*- and for the nominatives like Kash. *suh*. The
case of Panj. *eh*, etc. is more embarrassing: the simplest thing is
to identify it with Sdh. *he*, O. Guj. *eha*. There is also Apabhraṃśa
eho considered as equivalent to Pkt. *eso*, Skt. *eṣa*: this raises once
more the question of the irregular treatment of intervocalic -*s*-.
One might imagine that a combination like *(a)ha e*- resulted in *eh*-
as well as in *he*-. The clue to all these forms lies, no doubt, in the
existence of an expressive *h*-: cf. Chat. *h-ar* other, etc., see p. 67.
It is common knowledge that pronouns are able to attract
particles. In India this is ordinarily a particle signifying "even",
cf. Hin. *hī*, Beng. -*i*, Mar. -*c*, Sdh. -*j*. Ashk. *yāk* combines the
stem *i*- with *k*- or the pronoun *kī*; cf. *sə* or *sə kə* (Waig. *skə*, Kati
askā that one). Singhalese has an enlargement -*ka*-, which must
be of the same nature (it is hard to see how *eka* one, could apply
here, especially as there is a plural).
An accumulation of pronominal stems is fairly common. In
Khowar *hasa* has plural *hatet* which seems to contain *te* twice;
and the plural *hami-t* from *haiya* must therefore contain three

stems or, at least, two preceded by a particle. So too Pashai *ū-sᵃ*, Kash. *tima*, Garwi *teme*, Pras. *sumi*, etc.

Returning to undisputed forms we may note that the opposition of subjective and oblique stems (old genitive) has been shifted to all kinds of pronoun: Eur. Rom. masc. sg, *yov; les;* Nuri *panji: -s, -atus;* Pras. *su: miš;* Kash. *yih: yimis;* Kho. *haiya: hamu;* Pash. *yo: mī;* Waig. *ī*, obl. pl. *amī*.

Finally, we must note the persistence of enclitic obliques in the western group: Kash. *-s* (ag. *-n*), pl. *-kh (esām?* cf. sg. *khāh*, pl. *khokᵃ: khaśo, khasāh));* Lah. *-s*, pl. *-ne;* Sdh. *-s* (agent. *-ĭ*), pl. *-nᵢ̱* (agent. *-ū*); Garwi sg. *-s* Ashk. *-(a)s*, pl. *-son;* Nuri *-s*, pl. *-san.*

Relative Pronouns

India is the only area in the Indo-european domain, in which the old relative, Skt. *ya-* is still preserved. In Iranian there remains just a trace of it in the *izāfat*, which plays quite a different part. The fact is all the more striking, because the languages of India other than Aryan are unaware of the relative. This pronoun has no doubt held firm, because it was embodied in a rigid framework of relative, correlative, interrogative (and indefinite) adjectival pronouns and pronominal adverbs: e.g. Hindi.

> *jo, so, *ko* cf. *koi* (cf. Braj *jaun: kaun*) who, that one, who (someone)
> *jaisā, taisā, kaisā* "qualis (rel.), talis, qualis (interr.)".
> *jitnā, itnā, kitnā* as great, as many as; so much, many; how great, many?
> *jab, tab, kab (kabhī)* when, then, when?

The peripheral languages alone have lost the relative. The North-western group, except Kashmir, replace it by the interrogative (it seems that there is a new differentiation in Prasun: *kes* who: *tes* who? and in Gawarbati: *kenze* who; *kara* who?, anyone) or by the Persian *ki*, which becomes a real conjunction, or, finally, is contented with simple juxtaposition of sentences.

In Pashai (*LSI*, VIII, II, p. 94; but Grierson has another interpretation) use is made of the demonstrative: *sa*, cf. *ū-sᵃ* he, it (but Siraji and Rambani *zo*, Poguli *yō*). European Romany employs a *calque* of Gk. *hopoū*, that of Palestine a Semitic word and construction.

In Singhalese the substitute for the relative clause is the affixed

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participle, a construction lost long ago in continental India. There remains, however, a relative particle *yam*, which is always completed by an interrogative particle *da* (origin?) or a conditional particle *nam* (Skt. *nāma*).

The inflexion of relatives, which is on all fours with that of correlatives, Hin. *so*, Raj. *yo* etc., raises embarrassing problems. It is complete in Marathi only, and, moreover, assimilated to the inflexion of the noun.   Here and also in Sindhi, Panjabi and Hindi the nominative forms, sg. *jo*, pl. *je* are archaic in appearance; but while they derive from the purely masculine Skt. *yo*, *ye*, they do not vary in gender, except in Marathi, Sindhi, Jaipuri alone in Rajasthan (m. *jo*, f. *jā*), and finally, perhaps in the composite Kashmiri, *yus*ᵘ, f. *yŏssa* (cf. *suh*, f. *sa*).   In Marwari the enlarged form *jiko*, f. *jikā* varies, but *jo*, *jyo* remain invariable.   This variation takes place only in the singular; in the plural there are therefore no inflected forms, such as there are in Marathi.

Aw. (but Tulsi Das and Jaisi have *jo*), Beng. Or. and particularly Guj. *je* (variable in the plural by suffixes in Gujarati and Oriya) are less explicable; *je* in Nepal and Kumaon is applied to inanimate objects, while *jo* m. f. is animate.   Have we here to do with the generalisation of the neuter, which Marathi alone preserves as such: *jẽ*? Or is there a suffixed particle after the manner of Hin. *hī* even?

Note the use of the relative as demonstrative in Rajasthan, especially in the derived adverbs: Marw. *jiko* that, *jin sū* with them; *jari* like *tari* then (cf. Mar. *jarī* if), Jai. *jillai* until then, *jad*, *janā* then; cf. Hin. *jabhī* in consequence.   Perhaps a return to the double sentence with pure asyndeton.

INTERROGATIVES

There is a great variety of forms, which almost all go back to the traditional stems *ka-*, *ki-*, who, and what, respectively.

"Who"—The simple form is somewhat rare: Sdh. *ko*, f. *kā*, O. Guj. *ko;* Shi. Nep. *ko;* Kati *kū;* Kash. *ku-su*, *kō-zana* who knows?; Braj *kau* beside *ko* shows that it is a matter rather of enlarged forms than of the Skt. Pkt. *ko;* cf. probably Sgh. *kavda*. From Skt. *kīdṛśa-* come, Sdh. *kiha-ṛo*, Bal. *keho*, Guj. *kaśo* any, *śo* <old *kisiu* and perhaps Eur. Rom. *so* (Sdh. *keharo*, Panj. *kehrā* which? probably correspond to Pkt. *kerisa-*); and from *⋆kādṛśa-* O. Mar. *kāisā*.   There is a group corresponding to Apa. *kavaṇu*, (which is explained by Pa. *kopana*, *kiṃ pana*): Raj. Panj. *kauṇ*,

Hin. Aw. *kaun*, Guj. Mar. *koṇ*, Lah. *kāṇ*, Nep. *kun*, Beng. *kon* (which? beside *ke* who?), Rom. *kon*. Pash. Waig *ke*, Ashk. *čei*, obl. *ko*, but Maith. Beng. *ke* raises problems.   Tirahi *kāma* is Afghan.

"What"—Skt. *kim* seems to be directly mirrored in Maith. *kī*, Beng. Or. *ki*, Panj. *kī*, Garv. Tir *ki*, Shi. *je-k*, Sgh. *kim-da*. Hin. *kyā* (obl. *kāhe*), Panj. *kiā*, obl. *kit*, *kaī*, Sdh. *chā*, Kash. *kyah* (dat. *kath*), Kal. *kīa* seem to be enlargements of it.   The *ka*-stem, resting no doubt on the oblique cases is also used.   O. Hin. *kahā* and Waig. *kas* are actually the oblique.   Awadhi has *kāw*, Chattisgarhi *kā*.   The neuter plural Apa. *kāī*, is found again in Jai. *kāmīṃ*, Mar. *kāy* (obl. *kaśā* from dir. *kasā*), perhaps Kati *kai*, Lah. Mew. *ke*, Nuri *ke*.   There are other forms, which are even less clear.

Hin. *kyā*, Beng. *ki*, etc., at the beginning of a sentence show it to be interrogative.   It would otherwise would be, apart from the intonation, indistinguishable from a positive sentence.   They fulfil the function of the French *"est-ce que"*.   Nepali has *ki* at the end of the sentence. (Marathi and Gujarati use *kāy* and *śū* respectively, either at the beginning or the end.   Guj. *ke* only at the end.   Used at the beginning these words are in the nature of interjections. *A. M.*)   For the Bengali type *ki nā* Hin. *ki nāhīṃ* or ṇot, see p. 308.

INDEFINITE PRONOUNS

In Sanskrit the interrogative followed by *ca, cit* or *(a)pi* is used as an indefinite.   Hence e. g. Pali *koci*, neut. *kiṃci*. Asokan has similarly *keci, keca*, and moreover a form with aspirated palatal *kecha, kicchi, kiṃchi* which attests the survival of Skt. *kaśca*.   Prakrit has *kovi*.   From *ko(ci)* or *kovi* come Hin. Panj. Raj. Guj. *koī*, Or. *kei* and by contraction Guj. Sdh. Shi. *ko*, Kati *ko* (n. *kai*), Pash. Tir. Waig. *ki*.   Parallel in formation, but modern are Mar. *koṇhī*, O. Hin. *koū*, Bih. *keū*, Beng. *keho, keu*, Neut.: Mar. *kāṃhī*, Guj. *kāi*, Mrw. *kīṃ*, Sdh. *kī*.   The *kicchi* type is carried on in Beng. *kichu*, Or. *kichi*, Hin. *kuch(ū)*, Sdh. *kuch^u*; Sgh. *kisi* is doubtful.

PRONOMINAL ADJECTIVES

The majority of the Sanskrit pronominal adjectives, which go back to Indo-iranian, have disappeared.   Their rare remaining

p. 203 representatives have no particular characteristics; they are declined as adjectives: Hin. *sab, jaisā*.

The derived groups of pronouns have the relative, demonstrative and interrogative forms: Hin. *jaisā, taisā, kaisā*.

The form best represented is that which expresses quantity, coming from Skt. *kiyant-* "quantus", Pa. *kittaka-*, Pkt. *kettia-* (the *e* of which must come from the parallel demonstrative *e*, cf. Pa. *e-disa-, ettaka-*). In Kati *kett* means "who, who?"; but Waigeli has *keti* with the old meaning. Tirahi has *katesi* how much, cf. *le-tik* so many, *katisi* how many; Ashkun *čīt*, Gawarb. *kata*. With various suffixes we find Torw. *kadak*, Pras. *kereg*, Shin. *kačāk, katak*, Maiyã̄ *katuk*, Kash. *kūtᵘ*, fem. *kíčᵘ*, Eur. Rom. *keti*, Nuri *kitră*, Sdh. *ketiro*, O. Guj. *ketalau*, Guj. *keṭlo* (!), *keto* (dialect), O. Mar. *ketī*, mod. *kiti*, Panj. Hin. *kitnā*, Beng. *kata* (influenced by Skt. *kati*? But certainly not Pkt. *tattaka-*), Or. *kete*.

Mar. *kevḍhā* seems to rest on a type **kīyad-vṛddha-* how great, or rather on a Prakrit type **ke-vaḍḍhaa-* parallel to *ke-mahālaǧa-* which is attested. Sgh. *kī* enlarged to *kiya-da* seems to rest on *káti-*; *koccara* how, is obscure; *kopamāṇa* is a learned composite form.

In order to signify "of what kind" the groups Hin. *kaisā*, Mar. *kasā*, O. Mar. *kāisā* go back to a type **kādṛśa-; cf. Ved. unique *yādṛś-* Br. *tādṛś-*. For the derivatives of *kīdṛśa-* see above p. 202. O. Beng. *ke-mant*, Beng. *ke-mat, ke-man* are late formations. There are others not so clear.

REFLEXIVES

Although at bottom the question is one of vocabulary only, the survival of Skt. *ātman-* is worth noting. In the Ṛgveda it coexists with the Indo-iranian *tanú*, which it ousts immediately afterwards, leaving *svá-* and *sváyam* quite out of the picture.

The derivatives of *ātman-* in Middle Indian are of two kinds (see p. 84): *appā, attā*. From the former come Hin. Panj. *āp* (obl. *āpas*), Or. *āpe*, O. Beng. *āpā*, Beng. *āpaser madhye* amongst.... selves, Nep. *āphu*, Rom. obl. *pes* and the derived Guj. *pote*, Torw. *pāe*, Ashk. *poi*, Waig, *pei*, Garw. *phukā*, Brokpa *pho* and *pero*. The oblique stem has provided Beng. *āpni*, Sdh. *pāṇa*, Kash.

p. 204 *pāna*, Pras. *pane*, Nuri *panji* and the adjectives Hin. *āpnā*, Panj. *āpṇā*, Guj. *āpṇo* (inclusive "our"), Nep. *āphnu*.

From the *tman-* stem come Sgh. *tamā*, Torw. *tam* and the Shina adjective *tomu* own; Khowar *tan* self, Garw., Waig. Ashk. *tanu*, Pash. *tānuk* own, derive from Vedic *tanú*.

For the use of these words as honorifics see p. 194.

Pronouns form a grammatical group peculiarly liable to semantic wear and tear and to use as expressives; and consequently to renewal. The multiplicity of forms is thus explained. But all go back etymologically to Sanskrit originals, and although there are adaptations, there are no creations, as, for example, are seen in Romance languages. The characteristic initial consonants: the demonstrative *s-* or *t-*, the relative *j-*, the interrogative *k-* are constants, and words grouped by meaning remain grouped also by form on a clear system; which makes for sharpness as well as rigidity in complex sentences, as we shall see.

The inflexion preserves archaic characteristics: the oblique in *-s* in the Hindi-Panjabi-Lahnda-Nepali group; and especially the nominative of the *jo* type, which is for example opposed in Hindi to the two substantive types *bāp* and *ghoṛā*. The most important novelty is the general absence of gender, which comes, perhaps, from their being put on the same level with the personal pronouns.

THE VERB

The Indo-european verb comprises, on the one hand, forms provided with endings expressing the person, but not the gender, and, on the other hand, nominal forms expressing the gender as well as the number, but not the person and characterized by their close connexion with the strictly verbal stems and by the fact that they can be used in the same categories and with the same constructions as the personal forms. Here personal forms are alone in question.

VEDIC

The Vedic verb is closely allied to the Avestan verb. The stems are formed in the same way (though the use of -*p*- for the causative is peculiarly Indian); the reduplicating formations are the same and involve common processes (the vowel *u* in the present: Av. *susruš*-, Skt. *śuśruṣ*-; *u* and *i* in the perfect: Av. -*urūraoδa*, Skt. *rurodha*; Av., *čikōitərəš*, Skt. *cikituḥ*); the augment acts in the same way, but it is neither rare as in the Avesta nor consistent. Finally there are common peculiarities in the endings (impv. 3rd sg. mid. -*ām* and -*tām*, 2nd sg. mid. -*sva*; 1st sg. aor. mid. with thematic -*i*, use of -*dhv*- for the 2nd pl. in the primary middle forms: *trāyadhve*, Av. *čaraθwe*; similarly beside the secondary 1st pl. mid. -*mahi*, Av. *maiδi*, the Sanskrit primary form -*mahe*, Av. -*maide*). The differences are not serious and rest upon conservatisms: 1st dual -*vaḥ* opposed to Av. -*vahī* is the result of a simple distribution; distribution also accounts for the restriction of the 1st sg. -*ā* to the subjunctive (*brávā* like Av. *aṅha*; but there is only the Indian indicative *pṛcchāmi* opposed to the Av. *parəsā*), the prelude to its total loss (there are at this stage no more than half a score of examples). The peculiarly Indian particle of the 2nd sg. impv. *gṛhāṇa*, *badhāna* and the Vedic endings -*ta-na*, -*tha-na* probably goes back to Indo-european

(Hittite 1st pl. *-weni*, 2nd pl. *-teni*).   In any case the type *tasthaú*, *papraú*, 1st-3rd sg. of the perfects with long vowel roots comes from Indo-european (Meillet, *Revue des ét. arméniennes*, 1930, p. 183) and Iranian, by eliminating it, has made an innovation. The ending of the second plural of the perfects in *-a (vidá, cakrá)*, which is replaced in Iranian by a primary ending, is certainly an archaism; similarly the imperative *vittāt* know, let him know, is supported by Latin and Greek; the 2nd sg. mid. *ádithāḥ*, opt. *jānīthāḥ* has corresponding forms in Celtic.   Side by side with this the creation of the precative, the rearrangement of dual forms of endings in *r* (AV pres. *śére* like Av. *sōire, saēre ;* pf. *cakrire* like *cāxrare*, but *jagṛbhriré: ásasṛgram* like *vaozirəm*, but *acakriran*, aor. *ádṛśran*, impf. *aśerata*, plup. *ávavṛtranta ;* impv. *duhrám*) and the extension of the imperative to the perfect are innovations, which are of no importance subsequently.

Finally, let us add that, so far as the use of endings is concerned, a subject in the neuter plural is found with a singular verb both in the Vedas and the Avestan gāthās.   But this use, although regular in the gāthās, has already become exceptional in the Ṛgveda.

STEMS

Stems are very varied.   Abstracting them from the derived forms the native grammarians recognise 10 classes of presents. Besides this there are radical and sigmatic aorists, each species comprising several forms; the future and the perfect. Special shades of meaning are expressed by modal suffixes : indicative and imperative (zero), subjunctive (the radical guṇa and the *-a-* morpheme), optative (the *-yā-*, *-ī-* suffix; *-e-* in thematic stems). Finally, there are two voices: active and middle.

Present Stems

There are numerous types; a few (three) are identical with those of the aorist, but the majority are derived formations peculiar to the present.   It goes without saying that all possible stems are not used in any given verb and nearly four-fifths of the roots in the Ṛgveda have only one present.

p. 209   *Stems with zero suffix, common to present and aorist.*

Athematic type:

This formation is characterized not only by the absence of suffix,

but also by vowel alternation in the root and by displacements of accent, at least in the present: *é-ti: y-ánti*, Av. *aēiti: yeinti*. The alternations are less precise than in the aorists, for phonetic and other reasons, for example sg. 1 *ágam*, 2-3 *ágan*, pl. *aganma*, 3 *agman*; sg. 1 *abhŭvam*, 3 *abhūt*, pl. 3 *abhūvan*. This category is represented more fully in the Vedas than anywhere else in Indo-european. We find there about 110 presents, 100 aorists (80 in the Ṛgveda), the two groups together comparing with barely more than 80 roots in the Avesta.

In India some of the stems are dissyllabic, for example in the present: *brávī-ti: bruv-ánti*. These forms are rare (*ániti*, *taviti*, *śvasiti*, *avamīt*, impv. *stanihi*), but the type is resistant and one even finds AV *roditi*, which is surprising in view of Lat. *rudo*, *rudere*. As for *svapiti*, cf. AV fut. *svapiṣyati* opposed to *svápna-*, RV. 2nd sg. impv. *svapa*, this, according to Meillet, *BSL*, XXXII, p. 198, would be a survival of the type of Lat. *capio*, *capit* I take, he takes.

In the aorist *agrabham: ágrabhīt* is constructed like *abravam: ábravīt*: but the forms were separated, *ágrabhīt* joining the aorist in *-iṣ-* (Meillet, *BSL*, XXXIV, 128).

Simple thematic type, without oscillation of accent.

This is commonest in the present; the ordinary form has the guṇa: *bódhati*. The aorist root is in the zero grade: *budhánta*. The existence of two opposed stems of the same root, which is normal in Greek, is rare in Sanskrit (and Avestan): for example we find *róhati: áruhat; śocatu: aśucat; várdhati: avṛdhat; krandati*: 2nd sg. *kradaḥ*; but *atanat* is opposed to *tanoti*, *avidat* to *vindati* and similarly *amucat* to *muñcáti* up to the time, when the present, the 3rd plural of which is *mucánti*, is created. At this point imperfects and aorists mingle, producing a number of new forms in the Atharvaveda.

In all Indo-european languages, the thematic conjugations, which abound in the earliest records, have encroached on athematic forms. The alternations thereby produced created serious complications not only through the interplay of the vowels, but also through the phonetic consequences of the contact of consonants, cf. *tāṣṭi: ataкṣma*, 3rd sg. *aghaḥ* etc.

p. 210 In Sanskrit the most important new class is the *tudáti* type, which rests upon aorist subjunctives and optatives. Their origin accounts for their punctual aspect, whether the verb in itself denotes a momentary action (*rujati* he breaks, *sṛjati*, Av.

hərəzaiti he looses), or is opposed to a durative formation (*tárati* he passes: *tiráti* he reaches by crossing). This category is found in some abundance in early times—about 85 verbs in the Vedas and twoscore and a half in the Avesta.

Reduplicated stems, aorists and presents

Thematic:

Aorists were normally supplied from the *i* and *u* reduplicating types *(abūbudhat, sisvapat)* and were attached to the causatives (*bodhayati, svāpayati ;* cf. Av. *zīzan-* to procreate, and the Greek type *pephneīn*). This opposition is shown differently in the athematics: *ájīgar* he awoke (tr.): *jāgrate* he wakes up (intr.). In the present, on the contrary, by contrast with the *tiktó* and the *mimnó* group in Greek, Iranian has hardly half a dozen reduplicated thematic stems, and Sanskrit, only exceptional forms like *jighnate*, cf. Av. *jaγnənte* or forms, which even if they are old, are obscure: *pibati*, cf. O. Irish, *ibid ; tiṣṭhati*, differently constructed from Av. *hištaiti* and Lat. *sisto*, see below. All the remaining formations are confined either to the present or to the aorist.

Presents athematic:

This series, from which the preceding series seems to have issued, is well established in Indo-iranian, although not very numerous. There are rather less than 50 roots in the Vedas and a score in the Avesta. They have a fairly definite meaning. The forms reduplicated with *i* are preeminently causative (*iyarti* he causes to go, *sisarti* he makes flow) or transitive (*siṣakti* with the acc., accompanies, favours, opposed to *sácate* follows, joins, with the instr.). Those reduplicated with *a* appear to be preeminently intensive (*babhasti* chews, *vavarti* turns); but *dadāti* gives, *dádhāti* places, are transitive and *bibharti* bears, is opposed to *bhárati* brings, which furthermore readily takes preverbs; *jighnate* kills, corresponds to Av. *jaγnənte*, cf. Gk. *épephnon*, and there are signs that beside *dadāti* there existed **didati*. Thus the value of these forms is not very definite in the Vedas; their principal use is to supply presents to aorist roots, cf. *ádhāt, ádāt*.

Some have arisen later from perfects: *bibheti* (RV *bhayate: bibhāya*), *jāgarti (jāgára)*.

Intensives:

A reduplicating series is again in question, but the reduplication repeats the continuant of the root, if there is one, and lengthens

its vowel, if there is not: *várvarti*, pl. *várvr̥tati*, *janghanti*, *carkarmi*, *tartarīti*, *cākaśīti*, *pāpatīti*. This is an Indo-european category; but only Indo-iranian attests it plainly; and the Vedas alone make a developed use of it (90 roots against 13 in the Avesta). The creation of new forms is recognisable in the originally rhythmic extension of the dissyllabic type like *námnamīti* compared with the middle *námnate*, *varīvarti* beside *várvarti*. It has, moreover, supplied a few thematic passives like *marmr̥jyáte*, *rerihyáte* since the time of the Vedas.

Stems with nasal infix

Another important category preserved clearly in Iranian only and, in any quantity, in Vedic only, with several types:

from a root *ric-*, 3 rd sg. *riṇákti* (Av. *irinaxti*), pl. *riñc-ánti*;

from a dissyllabic root I.E. **grebhə-*: *gr̥bhṇāti* (AV. *gərəwnāiti*), pl. *gr̥bhṇ-ánti*;

from a root enlarged with *u*: I.E. **welu-* (cf. Lat. *uoluo*, Gk. *elúō*), *vr̥ṇóti*, cf. Av. impv. *vərənūiδi*.

But the type soon loses clearness. The first category is rather rare (less than 30 in the Vedas and 8 in the Avesta). The two last, in which *-na-/-ni-*, *-no-/-nu-* had the appearance of suffixes, were developed in Sanskrit: hence *jānāti* (already Indo-iranian), *badhnáti*, which is rare in the RV, is subsequently developed, *mināti* beside *minóti*, *asnóti*, AV *śaknóti*. In roots with nasals the suffix appears as *o/u*: *sanóti* wins, opposed to the aor. *asanat*, *vanoti* beside *vanati*, *manute* beside *manyate*, whence even *karoti* extracted from *kr̥ṇóti* combined with the aorist subjonctive. Thanks to these extensions, these two categories are attested for a score and a half and twoscore verbs in the Vedas (25 for each in Avestan). The aspect of these verbs, so far as one can be precise, is definite and this agrees fairly well with the practice in other languages. This is why they were used from Indo-european times as presents to aorists with the same meaning, when the latter have a temporal force: *chinátti: chedma* 1st pl.; *pr̥ṇáti: áprāt; jānāti,* cf. *jñeyāḥ; kr̥ṇómi: ákar, str̥ṇoti; ástar.*

This is the preferred type for presents, which have no thematic forms.

The verbs with nasals have, since the Indo-iranian period, included a few thematic stems with *n* infixed, like *siñcáti* (Av. *hinčaiti*); *vindáti* (Av. impf. *vindat* beside pres. *vīnasti*). There are some ten in all in the RV, six in the Avesta; the AV has in its own right *limp-* and *kr̥nt-*. Further, with a suffix *-na-*, which

has come from -*nā*- we find: RV *pṛṇáti* beside *pṛṇáti*, *mṛṇasi* opposed to *mṛṇīhi;* AV *gṛṇata* for RV *gṛṇīta* and AV *śṛṇa* for RV *śṛṇīhi*. This is still only a beginning. But when we consider that from the very first all the derived presents now about to be mentioned were grouped with the *bodhati* type, it is apparent that thematization has still a long way to go.

Derived stems

The *ya* suffix:

This suffix is widely extended in Sanskrit as in all Indo-european languages. It forms primary verbs, passives and derivatives from nouns and verbs.

Those which are primary from the Sanskrit (and Indo-iranian) point of view are of various origins thus *pátyate*, *páśyati* (Gath. *spasyā*), *náśyati* (Av. *nasyeiti*) are from nouns, cf. Lat. *pot-* (Skt. fem. *pátnī*), *-spex* (Skt. *spáṭ*), *nex*. *Mányate*, *háryati*, *kupyati* form part of the series O. Slav. *minītu*, Umbrian *heriest* he wants, Lat. *cupit*, the only one in which the suffix had originally a special meaning. The passives are connected with this series and denote a mental or physical condition.

But there are in Sanskrit active verbs (*iṣyati* throws) as well as intransitives (*pūyati* stinks, *śuṣyati* dries up). As a matter of fact, a certain number of them have no other reason for existence than to supply aorists with a present: *drúhyati: druhat*, *gṛ́dhyati: ágṛdhat* etc. and differ from them only in the position of the accent peculiar to Sanskrit. Nevertheless *múcyate* is found beside the ordinary form *mucyáte*.

The vowel of the root is normally of the zero grade. Here Sanskrit is more consistent than Avestan, which admits *xraosyeiti* shouts (cf. Skt. *krośati*). When the radical vowel is *a*, it is maintained so as to preserve the significance of the root (*páśyati*, *ásyati*, *dáhyati*, *háryati*, but *mriyáte*). We should also take into account verbs with a long vowel like *vāyati* and the *gṛbhāyáti* type constructed from an extinct form of aorist (a score and a half in all). The meaning of these verbs therefore is imperfectly fixed and the suffix acts quite mechanically, thereby showing its vitality. From the beginning it comprises some five-score verbs, not to mention 80 passives (in the Avesta there are a hundred in all).

To this must be added five score denominative verbs formed apparently within Sanskrit itself with the *yá* suffix (the accent is sometimes on the radical vowel as in the causatives): *bhiṣaj-yáti*

(Av. *baēšazyati*) heals, cf. the athematic *bhiṣákti*, Av. subj. *bišazāni* and RV *abhiṣnak*; *apasyáti* is active, *vṛṣaṇyati* and *vṛṣāyati* acts like a bull, *kavīyáti* is wise, *janīyáti* seeks a wife, *pṛtanāyati* fights. When the noun is thematic, the vowel is often lengthened: *amitrayáti*, behaves like an enemy, *devayáti* serves the gods, *mṛgáyate* hunts, *ṛtáyati* acts according to order, but *ṛtāyáti*, AV. *amitrāyati*, *yajñāyati* sacrifices. One wonders if this lengthening was not originally for reasons of rhythm (the preceding syllable is nearly always short in the RV). In any case a variety of groups show the vitality of this series in admitting analogical extensions: *adhvarīyáti*, *putrīyáti* from *adhvará-*, *putrá-*, *makhasyáti* from *makhá-*, *mānavasyáti* from *mānavá-*, *ratharyáti* from *ratha-*. In fact, the development of the denominatives is characteristic of Sanskrit (five score against a score in the Avesta); they are very frequently employed in the Vedas, the number of those only appearing once signalising a continued freedom of creation.

The *áya* suffix.

Very close in form to the above stems are the causatives and iteratives formed with the I.E. suffix *-eye- (Gk. *phobéō*, *phoréō*, Lat. *moneō*, *sōpiō*). As a rule the first have a long grade vowel and the second a vowel of the zero grade: *dyotayat*, *rocayat* he lit, *dyutayanta*, *rucayanta* they shone; and through an equivalent alternation: *pātáyati* he causes to steal, *patáyati* he steals. The coincidence of *svāpáyati* with Lat. *sōpiō* may also be noted. The Ṛgveda has five score causatives and about fifty iteratives already (in the Avesta there are about 80 altogether). Mention should be made of the *p* enlargement mainly of roots in long *ā*, an exclusively Sanskrit idiom: *sthāpayati* establishes, *snāpáyati* washes (*snāti* takes a bath). This formation of an unknown origin (cf. Vendryes, *Indian Linguistics*, II, p. 24; B. Ghosh, *Les formations en* p *du sanskrit*, p. 67, *BSL*, 35, p. 40*) was very popular.

p. 214   *Desideratives and futures:*

These two are again thematic formations, linked together by their Indo-european origin, but playing different and unequal parts in the history of Sanskrit. The desiderative force of the I.E. *-se-/-so- still shows through a few words, *apsanta* they sought to reach, against *āpnóti* he obtains, cf. *īpsáti* he desires, *śroṣamāṇaḥ* listening to, cf. *śṛṇóti* hears; note the middle use of *hásate* runs in a race, cf. *jáhāti* looses, Br. *mokṣate* seeks to be freed, cf. *mucáti* and *muñcáti* releases. The suffix has kept its true value only in the reduplicated forms, which came to the Vedas from

Indo-iranian: *jigīṣati* (and *jijyāsati*), Av. subj. *jijišaiti*: part. *śúśruṣamānaḥ*, Av. *susrušǝmnō: śikṣati* from *śak-* to be able, cf. Av. *asixšō* who does not learn. About sixty of these are found in the Vedas (a dozen in the Avesta) and in addition analogical formations as already in RV *didhiṣāmi* beside *dhitsate*, *pipīṣant* beside *pipāsati*, and the creation of AV *pipatiṣati* (*pits-* was no further from *pat-* than *dips-*, Av. *diwž-* from *dabh-*) show the vitality of this form.

The most widely spread form of the desiderative suffix in Indo-iranian is *sya* which served to make the future. It plays the same part as **se* in Greek and Italo-celtic, and of **sye* in Lithuanian. But the Indo-iranian development is an independent one, while Italo-celtic retains traces of the subjunctives used as intermediate forms, Celtic employing a reduplicating formation exactly like the present Sanskrit desiderative; and, finally, the details differ in Lithuanian.

One of the facts, which show most clearly how close the Vedic language is to Indo-iranian, is the poverty of this formation in the Ṛgveda. Only 15 future stems are found in the Ṛgveda; the Atharva has more than 20 new stems of this kind. This is very little, even if we take into account the fact that the contents of the hyms are rarely concerned with the future. As regards old Iranian, there are two in the Gāthās and seven in the later Avesta. Progress then becomes more rapid. Already a subjunctive *kariṣyā(ḥ)* is found in the Ṛgveda and an example of the preterite, which afterwards forms the classical conditional: *ábhariṣyat* he was going to remove.

Sigmatic Aorists

In the above formations the aorist is distinguished from the present by its endings and not by its stem. Indo-european, however, utilised the enlargements *s* and *iṣ* in the aorists, but the number of coincident forms in the different languages is very small. As for the aorist in *s*, Skt. *ádikṣi*, *ásiṣṭa* correspond to Av. *dāiš* mayst thou show, Gk. *édeixa*, Lat. *dīxī:* Skt. 2nd sg. *ávāṭ*, Subj. *vákṣat(i)*, to Av. -*važaṭ*, Lat. *uexī*. Therefore only if Skt. *ásthiṣi* and Av. subj. *stāṅhaṭ* are formed on the same principle, can one be sure that the form is Indo-iranian. Similarly the use of *iṣ* in the subjunctive and before certain endings has many analogies in Sanskrit, Latin and Hittite (Meillet, *BSL*, XXXIV, p. 127; Renou, *ibid.*, XXXV, 1); but the forms do not overlap.

The coincident use of these enlargements in the various languages is very striking, but the recent character of the formations in each has been proved in various ways. Their frequency in Sanskrit from the time of the Ṛgveda is only the more significant. There are at least as many of them as of radical aorists (aorists in *s* for 60 and in *iṣ* for 70 roots; athematic radical aorists for 88, thematic for 38 roots). The Avesta offers only two score aorists in *s* and but three in *iṣ*. The Ṛgveda has also two forms in *siṣ*: *ayāsiṣam*, *gāsiṣati* and eight aorists in *sa*.

Perfects

The perfect forms a system apart, characterized by special endings which, as we have seen, are archaic in the only early form, the so-called active: 1st and 3rd sg. -*a* (IE -*a* and -*e* respectively, Gk. *oîda* and *oîde*), 2nd pl. -*a* unknown elsewhere. This coincidence of vowels gives the alternations all their importance: 2 pl. *cakrá*, sg. 1 *cakára*, 3 *cakăra* (the alternation is of Indo-european origin, Kuryłowicz, *Symb. Gram. Rozwadowski*, p. 103; it fails only in roots with diphthongs in *i* or *u* followed by a consonant: sg. 1 and 3 *viveśa*, *dudroha*. From the Upaniṣads onwards the long vowel is admitted in the 1st person).

Compared with *paprắ* (and probably *jahắ*), the final vowel of which results from a contraction, the *papráu* type of the 3rd singular of the roots in -*a*-, which goes back, as we have seen, to Indo-european, had the advantage of characterizing the form (there are no examples of these roots in the first person in the Vedas). A further characteristic of the perfect is the 3rd plural ending -*uḥ*, deriving from the old *ṛ: āsuḥ*, Av. *ăṅharā*.

The system is completed by middle formations and by moods: novelties still rare in old Iranian (in particular there is no imperative), in which, generally speaking, the perfect seems less wide-spread than in Vedic: about 50 verbs against 240 in the Ṛgveda or two-thirds of the roots employed. This development of forms accompanies a weakening of meaning. In short, there is constituted a new preterite, which tends to be integrated into a conjugation.

Moods

All categories of the above-mentioned stems have been shown functioning as indicative forms, so-called, expressing affirmation. To them may be added the imperative, which expresses a positive

command and has no special stem characteristic. In contrast, eventuality and possibility (for the meaning of these words see below) are expressed by two categories of special suffixes which come from Indo-iranian: -a- in the subjunctive (1 sg. *bharāṇi* more frequent than *bharā* has an Indo-iranian particle suffixed: Gāth. *xšayā: ufyānī*, but it is much more frequently used in Sanskrit); -*yā* in the optative: -*ī*- in athematic verbs and -*e*- in the others, uniformly replacing the thematic vowel: *áyat(i): iyāt; pátāti: pátet* (1st sg. *bhareyam* opposed to Av. *barayąm* may be an early form: cf. the Greek optatives in -*oiē* in which *i* represents a geminated consonant).

The subjunctive is three or four times more frequent in the Vedas than the optative. But it may be noted as a sign of internal weakness that its secondary forms often duplicate injunctives with a modal force and that these secondary forms are less easily distinguished than those of the optative from the indicative. The optative on the other hand is already giving a proof of vitality by begetting the so-called precative forms, the sigmatic aorist middle (2nd, 3rd sg.) and then the root-aorist active (see *MSL*, XXIII, p. 120).

USE OF FORMS

Voices

As in Indo-european the middle endings show the part taken by the subject in the result of the action. This is the reason for the existence of verbs in the middle voice only, such as *āste*, Gk. p. 217 *hêstai;* 2nd sg. *śéṣe*, cf. Gk. *keîtai; márate*. Lat. *moritur;* and in the verbs, which have an active for the peculiar force of the corresponding middle: *śiśīte vájram* he sharpens *his* weapon, *úpo nayasva vŕ̥ṣaṇā* bring *thy* two stallions. Varying shades of meaning result from it: *dogdhi* means "he milks the cow" (*mā́ mā́m... vi dogdhám* let those two not exhaust me), *duhé* the female gives her milk. The opposition of the middle to the active is found again in other cases, in which the active appears as the factitive of the middle: *várdhati* or *vardháyati* he makes to grow, *várdhate* he grows. Hence comes the frequent use in the early period of root-verbs as passives: *stávase* thou art praised. But the R̥gveda already uses the middles of derived stems in -*ya*- in fairly large numbers to express the passive: *hanyáte* for example is sharply opposed to *hánti, sr̥jyáte* to *sr̥játi, duhyate* to *duhé*.

It is not to be concluded from these oppositions that there

was a middle conjugation in the Vedas, where for a given stem groups of middle endings would be opposed to groups of active endings: an active aorist, future or perfect can correspond to a middle present: *jighnate* serves as the middle of *hánti, bhrájate: ábhrāṭ; mriyate: mariṣyati, mamāra.* For one and the same verb the forms complete rather than correspond to one another. Similarly as regards the endings: in the imperative *tapasva* is opposed to *tapatu*, which is active like *tapati: bhajasva* means "give a part" like *bhajati*, not "share in" like *bhájate*. In a general way in the secondary series middle endings are preferred: *śócati: śócanta, śucucīta, śóśucanta, áśoci; marjayati: marjayanta;* opposed to *jáyate* he is procreated, *jániṣṭa* may signify "he procreated". In the perfect the 3rd pl. *vāvṛdhúḥ* is constructed like the 3rd sg. *vāvṛdhé*. Conversely there is the secondary *áśayat* beside *śéte* which is old.

Let us point out at once that the participle has a middle tendency: *dádāna*, Av. *daθāna-* is the participle of *dádāti; yája-māna-* denotes the officiator of the rite as well as the beneficiary.

In all these usages Vedic agrees with Indo-european and Indo-iranian. It is none the less true that the middle tends to extend in opposition to the active. The clearest proof of this is the creation of the different endings of the perfect and pluperfect.

Primary and secondary endings

In the verbs with two stems excluding the perfect, the opposition of present and aorist is expressed as a rule by the use of endings. In the indicative the present alone has both primary and secondary

p. 218 endings. To this distribution of form there is a corresponding distribution of meaning: the present describes an existing process or one outside time; its preterite, the imperfect describes or is lodged in the past; the aorist is not a tense of description, but of establishment of fact and, as regards the past, notes only the recent past of interest to the speaker.

Accordingly forms with secondary endings come under the imperfect or the aorist according as they are or are not opposed to a primary form: *áyajat* beside *yájati* is an imperfect; *ágrabham* and *agṛbham* made from stems other than *gṛbhṇāmi, ágṛbhṇāt* are aorists; *gamanti* is the aorist subjunctive of which *gacchān* is the present. As all possible forms are never brought into being, groups are formed by custom; for instance root-aorists opposed to derived presents: *ácet: cinóti, ágan: gacchati, ásarat: sísarti;* thematic aorists opposed to gunated presents: *ávṛdhat: várdhate, aruhat* (and *arukṣat*): *róhati.*

But this general rule only expressed a statistical fact. The usage shows that *dabhanti* (cf. Av. *dava-*) really belongs to the present, in spite of *dabhnuvanti* (cf. Av. *dəbənaotā*); the present *bhárti* beside *bibharti* and *bhárati* is a prehistoric heirloom: cf. *fero, fert*, see Meillet, *BSL*, XXXII, p. 197. Similarly *dárt* RV, VI, 27,5, is rather an imperfect than an aorist in spite of *dárdaríti* (supported by Av. *darədairyāt̰*).

Moreover, even in the present system, the form with secondary endings has not always a preterite sense, when it wants the augment: in RV, VII, 32,21, for example the present and secondary form are found side by side in the same use :

> *ná duṣṭutí mártyo vindate vásu*
> *ná srédhantam rayír naśat*

« A man, by ill-praise, obtains no goods; to him who errs no riches come ».

The name of injunctive is given to these secondary presents or to the root-aorists, which besides their preterite force have the force of a present indicative (one-third of the cases, about 800 examples occur in the RV). The particle *hi* and the negative *ná* can be appended to them; they can have the force of an eventual (contingent) mood and, if the case so demands, of an imperative (the prohibitive negative is *mā́*, the only use of the form preserved by classical Sanskrit); generally speaking, the meaning depends on the context. These facts, which are confirmed by the Avesta, are survivals of an early stage, in which distinctions of meaning and form were not yet reduced to rule.

On the other hand, the subjunctive, mood of subordination and deliberation, admits of primary and secondary endings, contrary to the optative, which has only secondary endings. This is also the case in the Avesta. It seems that in the Avesta the primary endings correspond to a plain future force in the active (or a present in relative clauses depending on sentences in the present), and the secondary endings to the meaning of contingency or desire. In Sanskrit we see glimpses of the same tendency, but the meaning is less predominant. In the thematic presents and aorists *-ti* is the most frequent (just as *-masi* is in relation to *-mah* and *-āni* subj. in relation to *-ā*) and is making headway generally. Consequently, it is just as if the subjunctive were an injunctive—and thus a present of slight actuality and with contingent force—able to use the two types of endings, active and middle with a fixed radical vocalism characterized solely by the suffix *-a-*. It is confused thereby with the thematic presents and has, in fact, been the origin of many of them (the

karati, agamat type), if not of the entire class.   It is a striking
fact that the primary thematic present and the subjunctive are
equally wanting in Hittite and that in Slavonic and Germanic
the present (in Slavonic the perfective) expresses the future for
want of the old subjunctive which performed that function in
Latin and Greek: Lat. *erit, feret* or Gk. *édomai* (Meillet, *R. ét.
slaves*, XII, p. 157).

In two ways, therefore, we catch glimpses of an undifferentiated
present with a basically contingent force in the oldest texts.   This
force survived through the classical language and remains in the
end that of the modern present.

The Perfect

The perfect is, as a rule, opposed to the present (with its preterite
the imperfect and with the future in so far as it exists) and to the
aorist.   It is opposed to them both in the independent formation
of the stem (*ásti: ása, ásyati: ása, kṛṇóti: cakára, bhinátti: bibhéda,
gácchati: jagáma; áha* and *śāśaduḥ* being isolated forms), by its
special endings (as a rule not admitting change of voice: *bhayate,
juṣádhvam: bibhāya, jujóṣa*) and in the manner of its use: for the
perfect expresses at first an established position or an actual
result, but does not describe or make a finding of facts.

To tell the truth this definition is based on archaic practices,
which became exceptional and their antiquity is only revealed
by comparison with other languages.   In that it expressed a result
the perfect recorded even previous events.   As a result the normal
use of the perfect in the RV is that of a preterite, which is even
at this date rare in the 1st person, since personal experience is
pre-eminently expressed by the aorist.   It is, indeed, distinguished
from the imperfect only by an air of greater gravity.

From this time forward the perfect tends to develope in
opposition to the present in several ways.   It begins with its
own present sense; imperfects and reduplicated aorists appear
as preterites of the perfect; the few modal forms take to them-
selves modal forms from reduplicated presents or intensives
(yuyávat).   Conversely *abibhet* (and the participle *bibhyat*) is
constructed from *bibhāya*, to produce ultimately the present
bibhéti.   From *véda* is formed *avedam;* from *cākana* the 2-3 sg.
cākán; from *jāgára*, the 2 sg. *ajāgar* thou wert watching (and the
participle *jāgrat*) whence later *jāgarti, jāgrati*.

But these new formations deprive the perfect of its original
characteristic, just as do in other respects the formation of pre-

terites and the adoption of middle endings, which from the beginning was of frequent occurrence. It appears, in fact, in Sanskrit only as a dignified form, thus preserving part of its special force in Vedic, and, from the very early Middle Indian period, it is just a dead system, of which only one or two fragments remain.

The Vedic verb, therefore, contains elements of different ages. Moreover, the forms are not ranged in series. It is the root alone and not the inflexion, which gives unity to a given verb; and on the meaning of the root depends in large part the choice of morphemes, according as, for example, the root in itself connotes a continuous action or a point of time. In one sense one might say that the Vedic verb is as much a matter of the lexicon as of grammar.

The later history of the verb is marked by the impoverishment of or rather the scrapping of forms, and by a tendency to parallelism and so to the establishment of a conjugation.

The situation is already changing in the Atharvaveda. The ending of the 1st sg. subj -*ā* is definitely discarded in favour of -*āni;* that of the 1st pl. indic. -*masi* gives way to -*maḥ*, over which it greatly preponderated in the Ṛgveda. Conversely, the subjunctive middle becomes complete: -*tai* of which there is only one example in the RV and -*sai*, which is altogether wanting, now become common. On the other hand, there is an extension of the future.

Nine out of ten of the injunctive forms have a modal force, compared with hardly half of these forms in the Ṛgveda. The negative *mā* is used with four-fifths of these instead of one-third. When one considers that the Atharvaveda reproduces many passages from the Ṛgveda, this is as good as saying that the non-modal injunctive has disappeared.

The perfect is rare and is entirely missing in the prose hymns. The aorist is weakened and the sigmatic aorist admits imperfect endings (2nd sg. *arātsīḥ* from *rādh-*, *avātsīḥ* from *vas-*, *bhaiṣīḥ* from *bhī*, 3rd *anaikṣīt* from *nij-*). It is, in fact, the imperfect becoming more and more like a past tense, even in the mystic hymns. On the other hand, the extension of the noun style favours the verbal in -*ta*.

Finally new forms appear like *karoti* (v. p. 211) which combines the old injunctive *karati* with *kṛṇoti;* and a new category, the periphrastic perfect of the causative: *gamayām cakāra*.

In the Brāhmaṇas the movement towards simplification of the inflexions is accentuated. In the Aitareya the present indicative supplies more than half of the personal forms; the future continues to extend and is reinforced by a periphrastic form used side by side with tense determinants: ŚBr. *śvó'har bhavitá* to-morrow daylight will come.

The only productive present stem is that in -*ya*-. The desideratives are also on the increase from the time of the Atharvaveda. The intensives, however, are decreasing and are preferably

p. 222 restricted to the middle.   There is a noteworthy difference between the expressive form and the form whose force is reduced to a quasi-grammatical function.   The imperfect definitely takes the lead of the past tenses; the aorist is limited to direct speech and the perfect, which the earliest Brāhmaṇas make little use of, is found again in abundance in the second part of the Aitareya and in the Śatapatha and so remains in subsequent literature.   But the evidence of the oldest texts and its poverty of meaning (it is not distinguish semantically from the imperfect) show that it is no longer anything but a literary survival.

Besides the present is capable in itself of expressing the past, so long as it is accompanied by certain particles, which have themselves no temporal meaning, viz: *ha*, *sma*.   In addition the Vedas employed *sma purā* to denote the habitual past.

The aorist is almost and the perfect is quite wanting in modal expression.   The subjunctive is becoming rare in the present, but the optative is clearly gaining ground.   It appears, for example, in sentences introduced by *yádi*, *yátra*, *yadā́* and *yarhi* (which is wanting in the Vedas).   The conditional with a past meaning is in course of development.

The middle is completing the normalisation of its use.   Henceforth it exclusively expresses the action in which the subject is interested.   The result is a distribution of meaning : *bhajati* he allots, *bhajate* participates in; *bhunakti* is useful to, *bhuṅkte* enjoys; *sṛjati* throws, *sṛjate* creates; *hvā-* to call, which is used normally in the middle by the Vedas, appears no longer in this voice except to make it evident that the call is for and to the subject.   Pāṇini records the distinction between *yajati*, which expresses the sacrificial act and *yajate* which applies to him, who causes the sacrifice to be made.   The middle even takes for preference a reflexive force, the first examples of this occurring in the Atharveda.

As the verbal class becomes impoverished and normalised, it appears also to become more independent of nouns and the denominatives diminish in number.   There is a very great extension of them later, but at a time when Sanskrit has become, a dead language and the creation of verbal forms from roots has become impossible.

From the epic period the verb deteriorates still further, both through the actual reduction of forms and by the vagueness of their use.   In the middle thematic forms are by far the most prominent and the middle endings of the future are no longer preferred to the active.   Further, new verbs are most usually put into the active.

p. 223   In a general way the middle is chiefly encountered in verse. It is a refined form: the imperative in -*sva* is redundant and polite by preference, considerations of metre are brought into play: MBh. 1.76.14: *rakṣate dānavāṃs tatra, na sa rakṣaty adānavān;* but of course a preponderating regard for metre indicates weakness in the grammar.

The subjunctive, which was already rare in the Sūtras, is dead in the Epic. Only the from of the 1st sg. in -*āni* remains, incorporated in the imperative, together with some sporadic imperative forms like 3rd sg. *nudātu* and *gacchāsi* in the Mahāvastu. In Middle Indian the Asokan *huvāti* (Sarnāth), if it is a subjunctive, is no doubt the last that can be cited.

The only mood to survive, apart from the imperative, is the optative. The precative, which is derived from it, has been normalised in the form of an athematic aorist optative (*bhūyāt, bhūyāsam* opposed to *bhavet; bhriyāt* opposed to *bibhṛyāt; pakṣīṣṭa* opposed to *paceta*). It has lost the special sense of prayer and is equivalent to an ordinary optative; further it is preserved only in refined literature. The optative on the contrary remains alive and disappears only in the later familiar prose (Vetāla). It appropriates various meanings and expresses an hypothesis, wish or order and also probability, making it possible for it even to change place with the indicative. But in keeping its importance, it loses variety and it is found only in the present. The conditional is rare after the Mahābhārata.

The tenses are reduced in the same way, although classical Sanskrit still recognises the aorist and perfect systems beside the present (with the imperfect and the future). The perfect has lost all special force and has the value of an ordinary preterite, except that it is excluded from dialogue by the stylists under the grammatical rule reserving facts of personal experience for the aorist. It is still a dignified form, which is only preserved by tradition. It exists no longer in any voice but the active; and so far as it does exist, its impoverishment may be inferred from the increase in periphrastic forms in -*āṃ cakāra*, later (Pāṇini is still unaware of it) *āsa* and finally (from the Epic period) *babhūva*, words of less and less significant value.

Similarly the old force of the aorist persists only in certain writers; the prose of the Brāhmaṇas, indeed, exaggerates the shade of meaning of the near past in it; Kāvya restricts it to the dialogue. But these uses are artificial and as a rule the aorist expresses an
p. 224 unspecified past. In this capacity it forms a fairly rich category, so far, at least, as the sigmatic forms are concerned (-*s*- more than

-*iṣ-; -siṣ-* is little used).   These forms are on the increase in the
Sūtras and the Epics, replacing the radical aorists, which are
inconvenient or liable to be confused with the presents; their
increasing number is the sign of a tendency to establish a consistent
opposition of the aorist to the present.   The grammarians consider
the aorist in -*s*- as the normal form.

Otherwise, the imperfect serves as a preterite, which is current
until and including the Epic, in spite of the grammarians' rules.
It then becomes scarce, as a form, no doubt, less characteristic
from the phonetic point of view than the aorist and from the
stylistic point of view than the perfect.

The future, which is under development, is in form a present;
and, what is more, the present competes with it, at first as a near
future and later in other uses.

The verb is dominated by the present system, by reason both
of the abundance of its forms and of its uses.   The present alone
admits of moods: the imperative and the optative.   Further,
derived formations are presents.   The future, as we have seen,
is part of the system, as is the passive, which is particularly
noticeable as a specialised derived form of wide scope.   It came
into being in the face of all the transitive active forms and even
outside these forms (impersonals of the type of *āsyate; gamyate*
and in the imperative *gamyatām*).   The verb is regarded in a
general way from the point of view of the present: at the beginning
of grammatical studies, before the era of analysis by roots, the
verb was designated by the 3rd sing. of the present.   Yāska
writes *krudhyati-karmaṇā* "with the meaning to be irritated",
śavatir gati-karmā... bhāṣyate "the verb *śav-* is used with the
meaning of walk", *hrasvo hrasateḥ* "the word *hrasva* comes from
the verb *hras-*".

From the time of the Epic the present acquires new uses, on the
one hand expressing recent events or even the past (in narrative)
and on the other hand the future, not only as a near future, but
generally also in relative clauses.   It may be substituted for the
subjunctive in interrogations or exhortations, and for the optative
to express eventuality or prohibition.   Finally it has become
the favourite mood for final sentences with *yathā* and *yena* so
that, in order that.

The present dominates the verb equally from the point of view
of form.   Every verb aims at having a present and other stems
are used to form it.   Thus in early times *karati* and the *tudati*
type had already been formed on the *agamat* aorists; similarly

p. 225 the perfect has supplied the Vedas with *bibheti* and *jāgarti*; the MBh *jaghnant-* takes its reduplication from the perfect; the Upaniṣad attempts *vedate* and is successful with *vidati*. Conversely, the present affects the other forms, hence the Epic *-sīdatuḥ*, *śaṃsuḥ*; it invades the imperative, in which *-tha* and rarely *-maḥ*, *mahe* are put in place of secondary endings. These are accidental and of restricted scope, but there is no doubt that they would have been much more numerous, had it not been for the preponderating grammatical tradition.

But while it it taking the first place, the present is at the same time becoming poorer from the point of view of form. In Vedic it was built up on several stems. Of these the athematic stems tend to disappear. The radical stems survive only from tradition; partial levellings like *animaḥ* after *aniti* or *kurmi* after *kurmaḥ*, and *brūmi* are all provisional. The majority of the new formations which compete with them are thematic; thus the Mahābhārata has an impf. mid. *aśāsata*, impv. *śāsantu* from *śāsti* and forms the imperfect *ahan* and *aghnan* on the aorist *ahanam*, *aghan*; the Upaniṣad gives *stuvate* for *stute* and the Sūtras have *rodati* against the early *roditi* and the Br. *rudati*. In the verbs with a nasal infix, *rundhati* is already Vedic; the Upaniṣad adds *bhuñjati*, *yuñjati*, *jānati* and the Epic *gṛhṇati*, *abadhnanta*; but the commonest form of this last verb is Br. caus. *bandhayati*, fut. *bhantsyati*, Ep. fut. *bandhiṣyati*, inf. *bandhitum* and *banddhum*; the Buddhist language adds *bhindate* and *prīṇati*, etc. So also in the intensives: Br. *lelāyati*, Sūtras, *sāsṛjati*, Epic *jājvalati*, *caṅkramati* and some others; but the entire category of intensives is crumbling away.

Of the thematic stems the formations in *-a-*, *-ya-*, *-aya-* remain productive, but are apt to be confounded in actual use: thus *kārayati* is equivalent to *karoti*. The desiderative class becomes atrophied after the Sūtras, showing the first signs of decay by the irregularity of their forms: as *iyakṣ-yeta* cf. *iyakṣate* Ved. (Ch. Up. has already *vivat-syāmi* in place of the ŚBr. *vivatsāmi*). In fact, it is the *icchati*+inf. group, absent from the Ṛgveda, which takes the place of the early desiderative (so also in Pali *dhammaṃ sotuṃ icchāmi* etc.).

Thus there is a general closing up of the verb on the present, which itself loses its variety of forms, both in stems and moods. The future is conjugated in a way similar to the present. Besides early personal forms it displays a periphrastic combination of the *hantāsmi* type. But this type does not succeed in establishing

in form or function itself firmly enough to become the
normal usage. The preterites, which reveal their weakness by
their competing with each other, in spite of the frequency of their
use, are supplanted more and more either by the present itself
accompanied by *sma*, which was discarded in course of time, or
by the verbal adjectives in -*ta*-, accompanied occasionally by the
verb *to be* or by a personal pronoun in the 1st or 2nd persons.
The participle agrees with the subject and when the active is to be
expressed, the logical subject is represented by the instrumental
with the participle in the neuter. The verbal use of the participle
in -*tavant*- is not so free. Here we have the elements of a new
paradigm, which later serves as a model for the use of the adjective
of obligation in -*ya*- and -*tavya*- as an equivalent for the future.

To sum up, everything indicates a movement towards a system,
in which the present is opposed to the preterite; and this is a
preparation for a later stage in which we shall see the present
opposed to participles, which take the place of the preterites.
There are other groupings: the category of causatives, the only
one of the derived presents which survives, was from the early
period associated with the reduplicated aorist, which served as its
preterite. Finally the close approach of the middle aorist in
-*i* to the present in -*yate* was the starting-point of a passive
formation, which was brought to exact completion by the verbal
in -*ta*- and the gerundive in -*tavya*-, -*ya*-. But before this system
could crystallize, phonetic evolution made it entirely inoperative.
Moreover, the grammar of the classical authors owes more to
the teaching of the early grammarians than to their own individual
languages. The growth of the new system, or rather, the first
system to be established in Indo-aryan is not to be seen in Sanskrit,
but in Middle and Modern Indian.

In Pali the verbal formations remain numerous and new stems are brought into being; but this is, in fact, the effect of the tendency to reorganize. The system of tenses is simplified: it comprises the present, the future (or conditional) and a combined preterite of the imperfect and the aorist. The subjunctive is missing from the moods, though some traces of it are recognisable in certain forms of the imperative and the optative.

Present

The opposition of active and passive, the sole remains of the voice system, is shown not by the endings, but in the stems. There is therefore no difference between the passives and the verbs in *-yati*, which indeed expressed even in Sanskrit states of fact or feeling. Accordingly we have Pali *naccati* (Ved. *nṛtyati*) dances, *passati* (RV *paśyati* and in Book IX *paśyate*) sees, *kuppati* (Ep. *kupyati* and *kupyate*) is angry, and also *maññati (manyate)* thinks, *bujjhati* awakes; in the other direction we find *vuccati (ucyate)* is said, *dīyati* is given, *paccati (pacyate)* is being cooked, *labbhati (labhyate)* is admitted, is possible, probable, *haññati (hanyate)* is struck, *kayirati (*karyate* for *kriyate)* is made.

In the derived verbs one normally finds the long form of the suffix: the causative *dasseti (darśayati)* has for its passive *dassiyati* beside *dissati (dṛśyate)*. Similarly *bhājiyati (bhājyate)* is shared, *māriyati* is killed, *pūjiyati* is honoured. This is governed by an Indo-european and Vedic rhythmic rule, traceable particularly in the nominal suffixes (cf. p. 82 last para.).

But this form of suffix, which has the advantage of retaining the distinctness of the root, is not peculiar to derived verbs. It is found also in simple verbs with a distribution following the same rule : *pucchiyati (pṛchyate)*, *yuñjiyati* in one direction and *vijjati (vidyate)*, *yujjati (yujyate)* in the other. Rhythmic alternation accounts also for the long vowel in *hariyati* beside *hīrati (hriyate)* ; the analogous form *paṭiyati* is thrown down, the passive of *pāteti*

which is associated with *patati*, is very significant; cf. in Asokan beside *vu(c)cati*, *ha(ñ)ñati* forms like *khādiyati*, *nīla(k)khiyati* on the one hand and *ganīyati* on the other. The form with the long vowel is, to judge from the grammarians, legitimate everywhere.

One of the chief advantages of the generalisation of the thematic type, which has already started in Sanskrit, is the fixation of the root. The Suttanipāta makes use of *hanti*; but its optative is *haneyya*, answering to *hanati*, an old subjunctive, which became a present after the Saṃhitās. Similarly we find in Pali as in Epic Sanskrit *rodati*, *ravati*; *āsati* corresponds to Br. *āsate (āste)*, *lehati* to Ep. *lihati (leḍhi)* and Pali adds *ghasati* constructed on the aorist and many others. In the reduplicated verbs *dadāmi* gives rise to *dadāma*, whence the impf. *dada*, opt. *dade* beside *dajjā*. From *dhā-* the Ṛgveda was already making *dádhate*, which produced Ep. *dadhati* and Pali *dahati*, which is more frequent than *dahāti*, opt. *vidahe*, *saddaheyyuṃ*, As. 3 pl. *upadahevu*; as for *jaggati*, it corresponds to the *jāgrati* of the Sūtras. The verbs in *-nāti* often have an imperative in *-na: pāpuṇa*, *jina*, *suṇa*; beside *gaṇhātu* are found *gaṇhatu*, As. *gahinevu*; even in the indicative *jānati*, pl. *jānare* are opposed to *jānāti*.

The very important class of causatives (formed from the root: *chedeti*, *srāvayati* or from the present: *nacceti*, *laggeti*, *bujjhāpeti*) and that of the denominatives have two phonetic forms of the same suffix: *vādayati* and *vādeti*, and with rhythmic variation of the radical vowel: *namayanti*, but *paṇāmeti*, and inversely *dāpeti*, but *samādapeti*. They are met with likewise in Asokan: Girnar provides *pūjayati*, *va(d)ḍhayati*, *ā(ñ)ñapayāmi*; the other inscriptions, *pūjeti*, *va(d)ḍheti*, *a(ṇ)ṇapemi*. This last form is worth noting, for it supplies evidence of an assimilation of the first person to the others (*-ayāmi* being treated like *-ayasi*, *-ayati*), which has the effect of fixing *-e-* as the root-ending.

In this way the derivatives join the verbs in *-ī-*, *-i-*, the early athematic stems of which have been made uniform by suppressing alternations: *eti*, *enti*, *ehi*; *seti (śete)*, *senti*; they form a small class with *neti*, *nemi (nayati)*, which attracts *demi* made from *dehi* in accordance with the relation *emi: ehi*; *jemi* (beside *jināti*), opt. *jeyyaṃ* (for *jayeyyaṃ*).

Parallel with these verbs in *-e-* are the verbs in *-o-*, beginning with *hoti*, *honti*, *homi* beside *bhava*, *bhaveyyaṃ* and the future *hessati*, *hehiti*, whence the aorist *ahesuṃ*; then *karomi: karonti* and the old verbs in *-nu-: suṇomi*, *suṇoma*, impv. *suṇohi*; *sakkomi*, *sakkoti: sakkoma*, *sakkonti (sakkati* is its passive, Skt. *śakyate)*;

p. 229 *pappomi, papponti,* As. opt. *pāpovā* (Pali *pappuyya*), inf. *pāpotave* (Pali *pappotuṃ*).

The infixed syllable is maintained by this normalisation: similarly the category in *-nā-* establishes *jānāmi: jānāma, jānāhi,* absorbs some old verbs in *-no-: suṇāmi, dhunāma, pāpuṇāti* (used in Asokan) and adds new verbs: *mināti* from *mā-, munāti* from *man-, vināti* beside *vāyati,* inf. *vetuṃ, jināti* beside *jeti, sambhuṇāti* against *sambhoti.*

The verb 'to be' retains the radical vowel in all forms: *atthi: amha,* opt. sg. 1 *assaṃ* beside *siyaṃ,* 2 and 3 *assa* beside 3 *siya* etc. Finally, we may recall *dammi, kummi* confirmed by Ep. Skt. *dadmi, kurmi,* which are singulars remodelled on the plural, contrary to custom.

The result of all this rehandling is a huge number of verbs with fixed radicals, more rigidly fixed even than the old thematic stems.

Future

There remains a certain number of verbs in which the suffix is attached to the root, when the latter ends in a palatal: *mokkhati (mokṣyati), vakkhati (vakṣyati), bhokkhaṃ (bhokṣyāmi);* in a guttural: *sakkhati (śakṣyati)* or in a dental: *checchati (chetsyati), vacchati (vatsyati).* These forms seem to have served as models for common verbs, the roots of which caused difficulties: As. *kacchati* from *kar-,* Pa. *haṅkhāmi, hañchati* from *han-.* But they were not clear: *dakkhati* and *dakkhiti,* which represent Skt. *drakṣyati,* rank as present opposed to preterite in respect of the aor. *adakkhi (adrākṣīt),* and do, in fact, assume a present sense. A new future is made with a clear suffix, *dakkhissati,* and also *sakkhissati;* the connexion is then similar to that of *gacchati* with *gacchissati.*

The suffix is evident after a vowel: *dassati* from *dā-, passati* and *pissati* (crossed with *pivissati*) from *pā-* to drink, *sossati* from *śru-, essati* from *i-, jessati* from *ji-, hessati* a direct derivation from *bhaviṣyati;* but *anubhossati,* As. *ho(s)sati.* Similarly the verbs in *-e-,* Skt. *-aya-: kathessati* derived from Skt. *kathayiṣyati* is the normal future, from the Pali point of view, o *katheti* and more particularly of the preterite *kathesi* (its peculiar connection with this last tense is best seen in *gahessati, aggahesi* opposed to the present *gaṇhati,* Skt. *gṛhṇāti*).

After a consonant the most frequent formation is *-issati* added to the root *(gamissati)* and notably to the present stem: *passissati,*

pucchissati, gachissati, caṅkamissati, caus. *bandhayissati;* it is
the normal future, which serves to interpret the others in the
commentaries: thus *jessasi, bhokkhaṃ* are rendered as *jinissasi,
bhuñjissāmi.*

It is convenient here to point out, but without being able to
explain them, the peculiar forms taken by the suffix in verbs with
a long radical (cf. p. 65), for this reason among others that they
persist in Middle Indian and have modern parallels. Thus: As.
hohanti they will be, beside *ho(s)santi, dāhanti* they will give,
Dh. *ehatha* beside J. *e(s)satha* you will go, Pali *kāhasi* (where the
long vowel may come from the aorist), *hāhasi* thou wilt leave;
further, the thematic vowel in these same verbs often becomes
-*i*-, Pali *padāhisi* thou wilt give, *vihāhisi* thou wilt leave, *hāhiti;
ehisi, ehiti, hohiti; kāhisi, kāhiti, kāhinti,* whence even *karihiti;*
similarly *dakkhisi, -iti, -inti;* Asokan has *va(ḍ)ḍhisiti* at Rupnath
and in Mysore, *vadhiyisati* at Kalsi. There is here a glimpse of
the action of the aorist.

As in Sanskrit, the past conditional is formed from the future:
abhavissa would have been, 3 pl. *abhavissaṃsu.*

Preterite

There is only one preterite, which is based at once on the aorist
and the imperfect. The augment is no more necessary here than
in Vedic. It persists in the active: 1 *agamaṃ* 2-3 *agamā,* pl.
agamāma -amha, agamatha -ttha, agamuṃ; sg. 1 *adaṃ,* 2 *ado, adā,*
3 *adā;* pl. 1 *adamha,* 2 *adattha,* 2 *adū, aduṃ.* Archaisms: *addā,
-a(adrāk),* whence *addaṃ* which is found in Jāt. III, 380⁶, in the
same strophe as *addasaṃ, akā* beside *akara* and *akāsi.*

The most general characteristic is the *i* of the aorist, preceded
or not by the sibilant: sg. 3 *assosi,* As. *ni(k)khami,* whence *agami,*
1 *assossiṃ, agamiṃ* (as already the RV *vadhīm,* TS *agrabhīm*),
pl. 3 *assossuṃ, agamisuṃ, agamiṃsu.* In some verbs with a radical
ending in an occlusive, the aorist, approaches the future: *achecchi
(achaitsīt), addakkhi (adrākṣīt),* whence *asakkhi (śak-), akkochi
(kruś-), pāvekkhi (viś-);* the connexion is seen in the hesitation
between *adhigacchissaṃ* and *agacchisaṃ* in the 1st sg. But
most of the preterites are based on the present: sg. 1 *agacchisaṃ,
apucchisaṃ, parilehisaṃ, amaññissaṃ, bhuñjiṃ, asuṇiṃ,* 3 *ānayi*
and *ānesi, icchi, apivi, hani;* pl. 3 *naccimsu* or *anaccuṃ,* As. *icchisu,
alocayisu, husu.*
In the middle sg. 2 *pucchittho,* 3 *pucchittha,* As. *ni(k)khami(t)thā,*
pl. 1 *akaramhase* have aorist stems; sg. 2 *amaññatha,* 3 *jāyatha*

was produced, As. *huthā* (Pa. *ahosi*), pl. 3 *amaññaruṃ* thought, *abajjhare* were tied, are attached to the imperfect.

Of the perfect there are left only remnants: 3 sg. *āha*, pl. *āhu*, and side by side with this last, *āhaṃsu* (also Mahavastu) has been formed; while *vidu(ṃ)* serves as a plural for *vedi (avedīt)*.

Indicative endings (middle and future)

As we have seen, Pali preserves some middle endings. These are survivals and met with principally in verse texts. It is largely a question of a graphic process for denoting a long vowel. Now this notation has no linguistic interest, since all final vowels in literary Middle Indian can have either quantity, which means in fact that all were short. It is no wonder then that middle endings have no special significance. In certain cases such as the 2 sg. *pucchittho* (which in fact seems half active: *-thāḥ+-aḥ< -*thaḥ*), 3 *pucchitthă* they allow a differentiation between analogous forms; 2-3 *(a)pucchi, (a)pucchasi* are, on the contrary, not distinct.

It seems, however, that the complete loss of middle force is recent. Aśoka writes at Girnar *du(k)karaṃ karoti* he does something difficult, but *maṃgalaṃ karote* he performs a religious ceremony (evidently in his own interest). Is this opposition just due to chance? Similarly Girnar has *ma(ñ)ñe*, where the other editions have *ma(ñ)ñati*; but there survive only the primary indicative forms. The subjunctive of *ma(ñ)ñe* is *ma(ñ)ñā*; and in the passive the 3rd plur. aorist is *āra(b)bhisu* opposed to *āra(b)bhare* are sacrificed, fut. *āra(b)bhisare*.

This raises a question about the group of endings in *-r-* of early Middle Indian. They are middle forms, since according to the Indian view, Skt. *-uḥ* does not contain *-ṛ. Now *-re*, which is rare in Sanskrit, is frequent in Pali; *labhare, khādare* (explained as *khādanti*), *jīyare* beside *jīyanti* and *jīranti* they grow old, *haññare* beside *haññante* they are killed, *miyyare* they die, beside *maranti*. Aśoka has also a future *ara(b)bhisare*. This form is found exceptionally in the preterite *abajjhare* they have been tied; and on the other hand *amaññaruṃ* they thought. Here perhaps *-re* has been adapted to the normal final syllable of the 3 pl., and is not a survival of Vedic *-ran*, as Geiger maintains.

p. 232   The secondary endings in the 3rd sg. mid. and 2nd pl. act., Skt. *-ta*, Pa. *-tha* (*abhāsatha* he said, *amaññatha* you thought) present an obscure problem, which is important as concerning endings in constant use. So far as the 2nd pl. is concerned, we must suppose that the old *-tha* of the primary endings passed to

the secondary endings of the active, perhaps through the impv. *labhatha* and then the opt. *labhetha* (As. pres. *pāpunātha*, opt. *paṭivedetha*); and thence to the middle, the ending -*dhvaṃ* creating a difficulty (it is sometimes represented by -*vho* which presumes *-*dhuvaḥ*). It would then, in short, be only a matter of a particular instance of the preponderance of active over middle.

It is harder still to explain the 3rd sg.: *abhāsatha* he said, As. opt. *paṭipajetha*=*paṭipajeya*; ind. As. *huthā*, but Nanaghat *hutā*. The purely mechanical analogy of the ending of the 2nd pl. appears to be insufficient in itself. In Sanskrit -*thāḥ* is second person and is replaced in Pali by -*tho* (with an intermediate -*thaḥ* rhyming with -*aḥ*, cf. *ado* thou gavest, *āsado* thou didst arrive). We might appeal to the frequent attraction of the 2-3 sg. to the secondary endings (starting from *assosi: -īḥ* and -*īt*) and consider that *-*thā ă* passed to the 3rd person before being secondarily and rarely replaced by -*tho* (opt. *labetho* Suttan. glossed by *labhissasi*; pret. *amaññittho*).

Moreover, the preterite has a 2 pl. *assuttha*, *agamittha* opposed to Skt. *aśrauṣṭa*, *abodhiṣṭa*. And in the 3rd person of the middle, the type *pucchittha* he asked, *sūyittha* he was heard, is well represented. The dental is unexpected.

So far as the 2nd plural is concerned there is another plausible analogy: -*mha* represents -*sma* and *śma* equally well. Since this development primary verbs, particularly the verb 'to be', which is met in groups with past participles (e.g. *āgat'attha* you arrived, *āgat'amha* we arrived), may have affected the endings.

In the 3rd sg. the expected cerebral is attested once in Asokan (Sop. *nikhamitha*, read *nikkhamiṭṭha*?); elsewhere *vaḍhithā* etc. The Śutanukā inscription has *kamayitha* and it may therefore be supposed that here there is a later substitution. It depends on the formation of the 3rd sg. -*tha*.

If the present is a good explanation of -*mha*, it can be seen *a fortiori* how the 1st pl. *labhamhe* may have been formed on the present itself, resting also on the 2nd pl. *labhavhe*; both in fact are seldom used as is also the case with *labhāmase* and *labhāmhase*, cf. *asmase*, *amhase*.

It seems then that the active forms affected the middle, and the primary the secondary forms.

p. 233 The latter point explains certain peculiarities of the future: *sossāmi* and *sussaṃ (śru-)*, *vacchāmi* and *vacchaṃ (vas-)*; As. Gir. *likhāpayi(s)saṃ*, elsewhere *lekhāpe(ś)sāmi*, Shah. *kasaṃ* (Pa. *kāsaṃ*), Kal. *kachāmi*. Wackernagel has pointed out that Asokan *mā pali(b)bha(s)sayi(s)saṃ* from *bhraṃs-* is an injunctive. We

have noted the uncertainty between *-isaṃ* and *-issaṃ* in the aorist (p. 230 under Preterite).

Conversely, the unification of the 1st pl. active is explained by the extension of the secondary form; *-mo* the normal development of *-maḥ*, was bound, when it shortened, to encounter *-mu*, the new creation for the optative; *-ma* on the contrary rhymed with the *-tha* of the 2nd person and had, moreover, the advantage of ranking, because of its shortness, with all endings except that of the 3rd plural.

Thus early Middle Indian, by reducing the grammatical categories of the verb, was confronted with a plethora of stems and endings. The grouping of them according to their use has led to simplifications and also to new formations, the reasons for which are sometimes not apparent. We shall find the same attempt at simplification resulting in complications in the history of the moods which survive in Middle Indian, that is to say, the imperative and optative.

Imperative

The extension of *-tha* and the 2nd pl. middle *-vho* to the 2nd pl. active has already been mentioned. The ending of the 2nd sg. in the athematic stems is maintained and even extended: *brūhi*, *dehi*, *akkhāhi*, but also *jīvāhi* beside *jīva*, *ugganhāhi* beside *ganha*, *sunohi* and *sunāhi* beside *suna* (Ved. *śṛṇuhi*, Skt. *śṛṇu*), *karohi*, *tussāhi* be contented. Further, *-ssu* is very frequent; it is a substitute for *-sva*, which is common in Sanskrit, whether the treatment can be considered as phonetic or whether there is an influence of the third person in *-tu*, *-ntu: pucchassu* ask, *muccassu* be delivered, *jahassu* release; one even comes across the 1st plural *pappomu*, glossed by *pāpuṇeyyāma* may we acquire. For the same ending in the optative see below.

Optative

As in the other secondary formations, the endings of the 2nd and 3rd sg. are bound to become confused after the disappearance of the final consonants: *dajjā*, which is still attested in the 3rd person, must have served also for the 2nd. Hence a combination with the old subjunctive (sporadic examples of which remain like *garahāsi* blame, *bhavātha* be, in the 2nd person), whence a paradigm in the singular 1 *dajjaṃ* 2 *dajjāsi* 3 *dajjā*. Similarly, in the thematic stems, 2, 3 *labhe* was enlarged to *labheyā/ă*

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under the influence of *labheyaṃ*, *labheyu* (the type of forms existing in Asokan), then reinforced in Pali (perhaps in order to regain the rhythm of *dajjaṃ*, *dajju*) under the form **labheyyā/ă* and finally gave 2 *labheyyāsi*, whence 1 *labheyyāmi* and 3 *labheyyāti*. Similarly in the plural 1 *labheyyāma* 2 *labheyyātha* beside *labhetha*, which had the inconvenience of rhyming with the presents of the verbs in *-eti* and notably with the causatives.

This system resulted from a series of normalisations. But thanks to Asokan, it is known that the history of these changes was more complicated and contained a variety of abortive experiments. There were forms such as 1st sg. *-ehaṃ* from *-e+ (a)haṃ*; Pali had several forms of the *labheyyāhaṃ* type made on the same principle; a plural *labheyyā/ă mha* and even a middle *vareyyāhe*. In the 3rd pl. Asokan has *āladhayevu* a phonetic variant of *-yeyu* and also *nikhamāvu*, which supplies evidence once more of a blending with the subjunctive. Girnar still has middles: *susuṃsera* which is old, and *sruṇāru* which is a subjunctive or an imperative.

The Pali verb displays contradictory tendencies: the one towards simplification of the system, which does not succeed in overcoming the traditional congestion, the more especially as the attempt at normalisation results in introducing new forms, and the other conservative and of literary origin. And it must be admitted that we are not in a position to estimate to what extent many, even apparently novel, forms are not adaptations to Sanskrit grammar.

The distinctive feature of the Prakrits is the breakdown of the preterite. Outside Jaina Prakrit *āsi* only is found; in Jaina Prakrit *āsi, abbavī, abhū* and *hotthā* with some other forms like *(a)kāsi, vayāsi* are used also with nouns in the plural; conversely, *karimsu* (e.g.) is found in the third and even the first person of the singular. Aṅs as in Pali *āhaṃsu* both 1st and 3rd sg. exists beside *āhu* 3rd sg. and pl. The ending in *-itthā/ă* (*-ettha* for the causative) occurs in the plural, 2nd and 3rd persons. Pischel, indeed, remarks that *acche, abbhe* (from *chid-* and *bhid-*) were used as optatives.

There remain, therefore, only presents (with impv. and opt.) and futures. Here the system approximates closely to that of Pali.

The formations of the present stems are manifold, but as their variations have no significance, it is useless to dwell on them, except so far as concerns the causative and passive. The causative is formed in *-e-* (Skt. *-aya-*): *hāsei;* mainly in *-ve-* (Skt. *-paya-*) for every kind of root: *hasāvei* like *ṭhāvei (sthāpayati), jāṇāvei* (formed on the present stem) and even *jāṇavei, ṭhavei.* The normal sign of the passive is *-īya* or *-ijja-* from *-i(y)ya-*, freely added to the present stem: *dharijjai, suṇijjai(śru-), pucchijjai(pṛch-)* and also *dijjai (dīyate), pijjai.* There are some strong forms: *dissai, dīsai (dṛśyate), muccai (mucyate), gammai (gamyate);* but it is difficult to distinguish ordinary forms from those remodelled by authors on Sanskrit.

In the inflexion of the present there are novelties of a phonetic order: 2 pl. *vaṭṭaha;* 1 sg. *vaṭṭămi* beside *vaṭṭāmi* (given by the grammarians for classical Prakrit, but not in the texts). Besides, we find, especially in verse, *-ma* in the 1st plural as in Pali (and at Niya: *presiśāma* we shall send), and *-mha* (and even *-mhi* in the sg., cf. the verb 'to be' 1st sg. *mhi* 1st pl. *mha, mho;* and in Jaina Prakrit *mi, mo*); but the common form is *-mo* or *-mu* its short form, corresponding more closely with the actual pronunciation. Moreover the thematic vowel is frequently replaced by *-i-*: *jāṇimo, vandimo, hasimo, lihimo;* similarly but more rarely

p. 236 in the singular *jānimi*. It is doubtful whether we have here
a remnant of the Sanskrit dissyllabic root conjugation, *bravīmi*
having been replaced by *brūmi* since Pali.   It is not clear how the
aorists in *-i* or the futures in *-iti* would have acted and, in order
to account for the limitation to the 1st person, an explanation of
a phonetic order would be desirable.

There are some middle endings (3 pl. *-nte* and *-ire*), but there
is no complete paradigm even in the grammarians. All our
information assures us that these forms have no linguistic value.

The 2nd sg. impv. has three endings corresponding to those of
Pali: *ra(k)kha*, *bhaṇāhi*, *rakkhasu*. As far as the last form is
concerned, have we here the Pali *-ssu* adapted to the rhythm
of the present *(rakkhasi)*?   Or is it, on the contrary, the original
ending: *-su* following *-tu* on the one hand and *-si*, *-ti* on the other?
In this case one would be justified in wondering whether Pali
-ssu is not an attempt to Sanskritise *-su*, cf. p. 233.

This ending is sometimes found in the optative: *karejjāsu/asu*
beside *karejjāsi/asi*, which forms a group with *karejjāmi* etc.
Prakrit, therefore, has at its disposal both the *kuppe* type and the
siyā, *sakkā*, *kujjā (kuryāt)* forms with *dejjā*, *hojjā* based on the
last of these; whence by a process of combination, *jivejjā*,
kuppejjā etc.

But it should be noted that the nasal of the 1st person is often
wanting, so that the 1st and 3rd persons of the singular are alike.
Moreover this single form has the force of the 3rd plural; *bhave*
for *bhaveyuḥ*, *āgacchejjā* for *āgaccheyuḥ*.   This is as good as saying
that the optative is no longer genuinely conjugated.

The future forms are, on the contrary, abundant and varied.
They continue, on the whole, those of Pali. It is sufficient to
notice the extension of the type in *-ihisi*, *-ihi(d)i* whence *-ihī/i*:
so one finds at one and the same time *gamissaṃ* (predominantly
classical), *gamissāmi* (Jaina and rare), *gacchaṃ* (Jaina) and
gacchihimi. The grammarians record a 2nd plural of the *gacchi-
hitthā* type, which seems to come from the aorist and a 1st plural
gacchihissā which is not explained and, moreover, rarely used.

The picture of the Prakrit present and future does not then
differ essentially from that of Pali, especially if it is borne in mind
that the profusion of forms must be owing to the duration and
variety of the literature and also, no doubt, to some extent to the
imaginativeness of writers and grammarians. In contrast is the
salient characteristic of the absence of a viable preterite. The
reason of this is that at this stage of evolution the past is expressed
by the past participle, a form no longer optional and supplementary
to the other forms, but normal and exclusive.

   Conjugation is the portion of the morphology, which best shows
that literary Middle Indian represents only one part of the Indo-
aryan group.   Apart from the obscure forms, which occur in
normal proportions in the languages of India proper, certain
cases in the Dardic group show that general parallelism does not
exclude independent development.   So far as we know, the
general aspect of grammar is the same in that group as elsewhere,
and it seems that the majority of divergencies are due to the
effect of local phonology or to the vocabulary (auxiliary -*st*),
or else to the existence of isoglosses, which bring these languages
nearer to Iranian (infinitives in -*ik* and the use of the relative
pronouns), if not actually to borrowings from Persian or Afghan
(present participle in -*ān*, -*ăn?*).   But there remain characteristic
archaisms in the inflexion entirely unknown to literary Middle
Indian.   The most certain of them is the survival of the long
ending of the Vedic 1st plural -*āmasi* (it will be noticed that the *s*
is palatalised): Kati *asəmiš*, Ashk. *semiš*, Pras. *esemš-o*, Pash.
dial. *inamas* we are, Kal (South) *karimiš* we make.
   One suspects also persistence of the Vedic 2nd pl. -*athana* in
Kati -*ẽŕ*, Pras. -*en-o*, Waig. -*ẽ*; and the preservation of Skt. *daddhi*,
which has disappeared since early Middle Indian, in Khow. *det*
gives, but here we must reserve the possibility of annexed particles
like Skt. *tāvat*, *tathā*, cf. O. Kash. *tā*, *to*, mod. *tav*, Hin. *to*, Rom.
ta.
   The most astounding archaism seems to be the presence of the
augment of the preterite in Kalasha and Khovar.   The opposition
of Khow. *šer*, Kal. *šiu* there is: Khov. *ošoi*, Kal. *ašis* there was,
and of Khov. *bōm* I can: *obetam* I could, Kal. *pim* I drink: *apīs*
avis I drank, *kārem* I do: *āris* I did, is indeed striking; and
H. W. Bailey cites mod. Iran. Yaghnobi *akúnim* I made (communi-
cated by R. L. Turner) but comparison of the endings of these
languages shows   that they are often formed from auxiliaries
probably preceded by gerundives or participles.   This may then
be a matter of secondary formation and not of continuation of

forms with the Sanskrit augment. These forms are hardly found
any longer in Asokan except in the verb 'to be'; in Pali the
augment was still used in relatively short forms *(agā, agamā)*,
but it is absent from the non-canonical literature. In modern
Indian only the auxiliary *āsi* persists in traces.

The Neo-indian system rests on the opposition of two groups
of forms: one strictly verbal, which continues the present indicative
and to some extent the future and imperative of Prakrit and one
comprising nominal forms more or less combined or assimilated
to the first. These forms are agential nouns, as e.g. in Singhalese,
but chiefly participles, present, future or past. The construction
of the present being in principle active and that of the past passive,
there is a double function for the verb from the start, even when
the two forms have only one stem.

<div align="center">Stems</div>

As the sigmatic future, when it exists, and the imperative are
based on the present stem, it is sufficient to consider the formation
of the latter. From the Neo-indian point of view, the primary
stems are of only one kind; the distinction of the categories,
from which the various stems are derived, is purely a matter for
etymology: for example, Hin. *jā- (yāti)*, *khā- (khādati)*, *ho-*
(bhavati), *so- (svapiti)*, *kūd- (kurdati)*, *pūch- (pṛcchati)*, *kar-*
(karoti), *uṭh- (uttiṣṭhati)*, *gaṇ- (gaṇayati)*, *pī- (pibati)*, *jāg-*
(jāgrati) *chin- (chinatti)*, *jān- (jānāti)*, *sun- (śṛṇoti)*, *nāc-*
(nṛtyati), *upaj- (utpadyate)* etc. not to mention later denomina-
tives.

It is convenient to mention here the stems extracted from past
participles, which could behave as nouns in Sanskrit whence the
equivalence of the two formations, not only in intransitives, but
also in transitives: Hin. *bais-* and *baiṭh-* to sit down *(upaviśati,*
upaviṣṭa-), Nuri *bag*, Rom. (Welsh) *phag-*, Guj. *bhāg-* to break
(bhagna-), also Hin., Guj. *bhāg-* to flee, opposed to Rom. (Greek)
phang-, Guj. *bhāng-* (beside *bhānj-* Pkt. *bhanj-*). Pkt. *mukka-*
the participle of *muc-* gives Panj. *mukk-* to fail, perhaps Kati,
Waig. *muk-* to flee (beside Ashk. *muč* from *mucyate*), also
Guj., Rom. *muk-* to leave, Mar. *muk-* to lose (beside Sdh.
muñj- from Skt. *muñc-* to send). Similarly in contrast with Panj.
laddh- to be found, Guj. *lādh-* to accrue, Rom. (Welsh) *laṭ-* means
'to find'. The opposition of meanings is ultimately the same
as between Mar. *lābh-* to be acquired, from the passive *labhyate*
and the denominative Guj. *lābh-* to acquire. Moreover a certain

number of participle stems are indistinguishable from present passive stems e.g. Pkt. *laggai*, *lagg-* come from Skt. *lagyate, lagna.-*

The stem-vowel presents regular alternations, when passive or causative stems co-exist with the old normal present. The examples will show that there can be consonant alternations also notably in the causatives. But these alternations are not general and there are more convenient and more frequently used suffixes to form the passive and causal.

Passive

Two stems can issue directly from one and the same verb, one representing the simple or causative present active and the other the passive. For example in Sindhi:

> *khāj̱- (khādyate): khā- (khādati)*
> *chij̱- (chidyate): chin-* (Pkt. *chindai*)
> *b̤ajh- (badhyate): bandh-* (Pkt. *bandhai*)
> *rajh- (radhyate): randh- (randhati)*
> *labh- (labhyate): lah- (labhate)*
> *ṭruṭ-(truṭyate): ṭror- (ṭroṭayati)*

The same pairs are found elsewhere, e.g. Lah. *bajjh-: bannh-*, Shin. *rāz-: raṇ-*. And there are others, e.g. Shin. *daž-: dăy-* *(dah-)* ; Nep. *lāg-: lāu- (lag-)* ; Lah.; *ṭapp-: ṭā-*; Guj. Hin. *ṭăp-: ṭāv- (ṭap-)* ; Lah. *diss-: dass-*, which rests on the old alternation od *dr̥śya-: darś-*.

Independently of the analogical pairs, which are quite common in Sindhi (e.g. *d̤ubh-* from *d̤uh-* to milk), these alternations served as a model for secondary groups in which the root without the guṇa expresses the intransitive and so the passive:

Hin. *ladnā* to be loaded, after *lādnā (lardayati)*
    dikhnā to appear, after *dekhnā* (Pkt. *dekkhai*) to see
    phaṭnā to be torn, after *phārnā (sphāṭayati)*
    bandhnā to be tied, after *bāndhnā* to tie.

p. 240   The pairs of verbs do not form regular series and their alternation is not consistent in any language. Moreover, they have no precise semantic force.

In some languages there are alternations generalised by the use of passive morphemes, Pkt. *-ijjai* or *-īai* added to the radical without maintaining the Sanskrit vowel variation: Marw. *karīj-* to be made, *khavīj-* to be eaten; Sdh. *d̤īj-* to be given, *mārij-* to be beaten, from *mār-* causative of *mar-*, and so to the impersonal

halij- to be gone, and even *thij-* to become, which is made from a
participle; Shin. *cariž-* to be led to pasture, *lapiž-* to warm oneself
(from the passive radical *tapp-*); Lah. *parhīe* is read, *marīsā* I shall
be beaten; Nep. *garīe* is made, *cahīdaina* is not desired; O. Mar.
karije is made, *sevije* is served, *vacije*, *jāije* it is gone (impers.);
O. Guj. *kahīyai* is said, *dījai* is given; Tulsi Das *pūjiata* is adored,
pūjiahi are adored, *karia* and *karījai* is made; O. Beng. *kariai*,
karijjai and *kijjai*.   There still remain archaisms like Mar. *pāhije*,
Guj. *joie*, it is seen, is necessary (it is expected); Mid. Beng. *pāie*
is obtained, Panj. *ki jāniye* perhaps.   These forms readily assume
the sense of obligation: Tulsi Das *sunia kathā* the story (is heard)
must be heard; let it be heard.   Hence the polite imperatives in
Hindi (*dekhiye* please look), North Bengali (*rākhek* keep), Kashmiri
(*gupizi* thou shouldst, he should etc., hide), which are only presents
passive like *cāhiye* is desired, is wanted; cf. also the prohibitions
in Birbhum Bengali: *āgune hāt diye na* the hand is not put, must
not be put in the fire.

   The causative passive (Skt. *-pyate*) has given rise to a few
formations: Panj. *ki jāpe* like *ki jāniye* what do I know, perhaps
(kim jñāpyate) is early; but Panj. *sīp-* to be sewn, from *sī- (siv-)*
is analogous, and similarly Sdh. *dhe-p-* to be washed, *jā-p-*
(jā<p>yate) opposed to *jan-* to engender, O. Mar. *ghe-p-* beside
ghe-ij- to be taken, *hārap-* to be taken away, lost, on which the
new models *ghepij-*, *hārapij-* were formed after the common type
(Doderet, *BSOS*, IV, p. 59).

   Finally, there is the type with a long vowel.   Gujarati has *-ā-*
regularly after a consonant: *lakhā-* to be written, and *-vā-* after
a vowel: *gavā-* to be sung, *jovā-* to be seen; Tulsi Das *kahāvau*
I am called; Bengali has *bolā-* to be called, *bujā-* (Guj. *bujhā-*) be
extinguished (but Hin, *bujh-*).   This last verb goes back to Pa.
vijjhāyati (the causative of which is *vijjhāpeti* extinguish), but
this tells us nothing, the Pali verb having no Sanskrit antecedent,
and furthermore the Sanskrit derivatives in *-āyati* have no special
force.   The question must be one of analogies going back to
Middle Indian.

   For suffixes preference is generally given to the alternations
which tally with those of the causatives or to idioms consisting of
expressions composed with *par-* to fall, *khā-* to eat, *jā-* to go:
the first expression recalling Dravidian and the two others Iranian
(šudan <*cyu).

Causative

The most generalised secondary formations are those of the causative. Sanskrit had two sorts of causatives (and denominatives):

1) with an alternating radical, the radical vowel of the causative being guṇated, that is to say, possessing from the standpoint of Sanskrit vocalism a supplementary *a*. There were, moreover, variants, the *-aya-* suffix;

2) with the addition of the *-p-* suffix to the *-ā-* roots: *dā-payati*, *mā-payati ;* this suffix is extended to other roots, from the sūtras onwards: *aś-āpayati*.

The two types exist side by side in Middle Indian; but the second is more and more widely extended to the point of doubling the first and of being itself doubled (As. *sāvāpayami* I cause to hear, I preach; and the participle *likhāpāpita* which has been caused to be inscribed, beside *likhāpita* and *lekhāpita*).

1) The first type survives in Neo-indian, but in fixed forms over a restricted although wide area. It seems to be wanting in Singhalese, Kafir and Shina; in Romany the probably unique alternation *mer- (mar-): mar- (māraya-)* has no longer any meaning, for *mar-* is not 'to kill', but 'to beat'; 'to kill' is *mera-*. Torwali has kept at least *maiy-* to die: *mow-* to kill; and the opposition *cuj-* to learn: *cūj-* to teach, the remains, no doubt, of an old network of analogies.

Khowar has a suffix *-ē* (without root alternation). It is uncertain whether this represents Pkt. *-e-* or a phonetic variant of the normal Kafir *-ā-* suffix: *γar-* to turn: *γarē-* to turn (trans.), *cic-* to learn: *cicē-* to teach.

The Prakritic languages have a stock of alternating verbs, the final consonant of which is preferably a liquid (including *ḍ* representing *ṭ* of Skt. *-ṭati* and opposed to *ḷ* from *-ḷyate*) and the termini are, one an intransitive resting on an old passive, and the other a causative with active meaning. Hence the oppositions:

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Guj. *vaḷ-* to turn (intr.): *vāḷ-* to turn (trans.)
Mar. *paḍ-* to fall: *pāḍ-* to fell
      mar- to die: *mār-* to kill
      car- to graze (intr.): *cār-* to graze (trans.)
      tar- to cross, be saved: *tār-* to save
      tuṭ- to break (intr.): *toḍ-* to break (trans.)
      dab- to be pressed down: *dāb-* to press down

Sdh.   *sar-*, *bar-* be on fire: *sār-*, *bār* set on fire
        parh- to read: *pārh-* (and *parhā*) to teach
        cir- to be annoyed: *cer-* (and *cerā-*) to annoy
        bhur- to collapse: *bhūr-* to ruin

Some examples from Kashmiri:

        lag- to be with: *lāg-* (the *g* of which cannot be phonetic)
            to be united
        ḍal-, *tar-* to cross (intr.): *ḍāl*, *tār* to make to cross
        mar- to die: *mār* to kill

The formation has vitality in Hindi:

        mar- to die: *mār-* to kill, beat
        chuṭ- to be released: *chor-* to release
        dab- to be pressed: *dāb-* to press
        khul- to open (intr.): *khol-* to open (tr.).

There are new creations: the *t* in *kat-* to be spun, cannot come from *-ty-*, it comes from *kāt- (kart-)*; similarly *chid-* is formed from *ched-* to pierce, taken itself from a Sanskrit word. Conversely the *t* of the causative *ret-* to empty, comes from *rit-* to be emptied, which is constructed from Hin. *rītā (rikta-)*; similarly the *ṭ* of *meṭ-* to remove by rubbing, comes from *miṭ- (mṛṣṭa-)*; *dīkh/dikh-* replaces *diss-* from *dekh-* to see.

The rhythm *a: ā* being dominant, the alternations *i: e* or *u: o* may give way to *i: ī, u: ū*: thus *pis-* to be crushed, from *pīs-* to crush, and conversely *lūṭ-* to loot, from *luṭ-* to be looted.

There are left some pairs in Bengali, often with dissociated p. 243 meanings: *par-* to fall: *pār-* to fell, *gal-* to melt: *gāl-* to melt (trans.), but *cal-* to go, *cāl-* to cause to go; *sar-* to go, *sār-* to arrange; *chuṭ-* to run: *chor-* to throw.

The inflexions are as in the simple verb.

2) The Sanskrit type *-āpayati*, Pkt. *-āvei* is, on the contrary, widely represented and productive: Mar. (with the vowel shortened by position) *karavi-* make... do (variant *karivi-* no doubt under the influence of the other causative *kare-*), Guj. *lakhāv-* make... write, Marw. *uḍāv-* make... fly in the air, Sdh. *tarā-* make... fry, *mawā-* make... measure, Tulsi Das *sunāv-* make... hear, Maith, *lagab-*, dial. *lagav-* to apply, O. Beng. *bandhāvae* he ties (*-āv-* is reduced later to *-ā-* in Panjabi, Hindi and Bengali); Or. *dekhāẽ* I show, but *khuāi* I cause to eat, from *khā-*; Nep. *garāu-* cause to make, Kash. *khy-āw-* to feed, beside *khyāvanāv-* in Kashtwari; similarly in Singhalese *kava-* to make... eat, *yava-* to send; Rom. (Eur.) *per-*

to touch, *peṛav-* to cause to touch; Nuri *jan-* to know: *janau-* to acquaint (see Macalister § 108); finally in Dardic: Kati *piḷṭ-e* and *all-ā-* to make fall, *paši-ē-* to light; Ashk. impv. *uṣawa-* or *uṣā-* mount on the back, from *uṣ-* take on the back; Kal. *nāš-* to die: *naša-* to kill.

This formation has imposed itself upon the Iranian dialects bordering on India: Afghan, Waxi, Yidga, v. Geiger, *Grundriss II*, p. 222, 329 (the Persian causative is in -*ān*-, Pahl. Bal. -*ān*- and -*ēn*-). It has, however, become subject to the competition of other suffixes in India proper: first of all -*ār*-: Sdh. *uthār-* to raise, and, with double suffix, *khā-r-ā-* to feed (just as by combining the suffix and the internal alternation we have *pherā-* beside *pher-* to turn (trans.) opposed to *phir-* to be turned; and the three processes at once in *sekhār-* to teach); Kash. *zy-* to be born: *zēvᵃr-* (the normal type contains the old causative suffix attached to a noun of action: *karanāv-* to engender); Shin. *paruž-* to understand: *paružar-* to explain; *so-* to sleep: *sar-* to put to sleep; *uthi-* to get up: *uthar-* to awaken (trans.). It is tempting to include the Romany denominatives in -*ar*-, the Greek type *kal-ar-* to blacken, which appear as causatives, when they are formed from participles as in *lal-ar-* to heat, *mard-ar-* to cause to kill. This analogy would lead us to suppose a compound with *kar-* to make (cf. Critical Pali Dict. s.v. *adinna* Pali and Singhalese).

It is a nominal suffix also, which one is tempted to recognise in Guj. *dekh-āḍ-* to show (indicated for Prakrit by Hemacandra: *bhamāḍai*); it is, moreover, liable to accumulation: *dev-aḍ-āv-* cause to be given. So also the -*l*- in Panj. *sikhāḷ-* and *sikhlāu-* beside *sikhāu-* to teach, *biṭhāḷ-* beside *biṭhāu-* to make sit; Nep. (exceptionally) *bas-āl-* to make sit; Hindi employs this suffix after some vowel roots: *dilā-* to make... give, from *de-*; *sulā-* to put to sleep, from *so-* etc. However, R. L. Turner ND. s.v. *kahalaūnu* to be called, sees the source of the *l* suffix in *pālayati* regarded as causative of *pāli*.

Causatives and denominatives have had, in fact, similar forms since Sanskrit. But the real history of these suffixes is hidden from us. The important thing to notice is that the opposition of causative to simple stems, which is made complete by the opposition of simple stems to passives, finally results in the opposition of intransitive to transitive stems (completed in exceptional cases by a different inflexion, see p. 245).

From the point of view of modern Hindi, for example, the relation is the same, whatever be the origin of the particular group, as:

mar- to die (Pa. *marati*)   *mār-* to strike (Pa. *māreti*)
lad- to receive a load   *lād-* to load (Skt. *lardayati*)
miṭ- to be effaced (from *mṛṣṭa-*)   *meṭ-* or *miṭā-* to efface
pis- to be crushed   *pīs-* to crush

and

paṛh- to read (Pa. *paṭhati*)   *paṛhā-* to teach
jāg- to be wakened (Pa. *jaggati*)   *jagā-* to waken (trans.)
sun- to hear (Pa. *suṇati*)   *sunā-* to recite
sukh- to be dry (Pa. *sukkha-*, Skt.
   śuṣka-)   *sukhā-* to dry
pak- to cook, ripen (intr. Pa. *pukka-*,
   Skt. *pakva-*)   *pakā-* to cook, ripen (trans.)
bujh- to understand (Pa. *bujjhati*,
   Skt. *budhyate*)   *bujhā-* to explain
ban- to be made *(varṇyate)*   *banā-* to make
bāj to sound *(vādyate)*   *bajā-* to play

Apart from the suffixes examined, some divergent formations may be noted in Kafir, e.g. in -*n*- (arising from the old nasal formation or from the local participle, cf. the Kash. causative?) and even in -*m*- (included in or extracted from the participial -*mān?* v. Garwabati, *LSI*, VIII, II, p. 84).

p. 245 Such rare exceptions only emphasize the general uniformity.

INFLEXIONS

The only normal indicative inflexion is the one derived from the old thematic present and the future active. It appears in Prakrit under two forms, 3rd sg. -*ai* and -*ei*, derived from the radical and causative-denominative stems of Sanskrit. In Neo-indian the second is the more often wanting, sometimes being, it seems, mixed up with the first and finally falling into opposition to it with a clear semantic force in the two languages, Marathi and Sindhi.

In Marathi there are:

sg. 1 *hasẽ* I laughed   *mārīṃ* I used to beat
   2 *hasasī/i, hases, hasas*   *mārīs*
   3 *hase*   *mārī*
pl. 1 *hasõ, hasūṃ*   *mārūṇ*
   2 *hasā, hasāṃ*   *mārā*
   3 *hasatī, hasat*   *māritī/i, mārīt*

and in Sindhi :

sg. 1 *halāṃ* I may go, I go   *māryāṃ* I beat, I may beat
    2 *halē, halīṃ*   *māryē, mārē, mārī*
    3 *hale*   *māre*
pl. 1 *halūṃ*   *māryūṃ*
    2 *halo*   *māryo*
    3 *halanⁱ*   *mārīnⁱ inⁱ*

Elsewhere there are mixtures of forms: in Apabhraṃśa, *karei* is employed with the same force as *karai ;* and it may be suspected that 1st sg. Beng. Or. *cali*, Maith. Mag. *calī*, 2nd sg. mid. Beng. *calisi* beside *calasi*, mod. Beng. *calis* beside E. Beng. *calas*, 3rd pl. mid. Beng. *calenta* beside *calanta* come from the causative.   Proof is not forthcoming, because forms of this kind appear only, when the old ending has a final -*i*.   Nor is the existence of the present participle stems, *dekhil-* beside *dekhat-*, in the eastern group any more decisive.   Finally, isolated forms like Kash. 2 pl. *čalin*, cf. 3rd pl. *čalan* must be noticed.

Even as regards the inflexions of the simple athematic, the p. 246 languages in which the Sanskrit and classical Prakrit endings are clearly visible, are rare.   These are, in particular, the peripheral languages.   There are, first, those which preserved unknown endings from classical Sanskrit; e.g.

Ashkun	Waigeli
sem I am	*vēsam* I strike
ses	*vēsaš*
sēi	*vēsai*
semiš	*vēsamiš*
[*seg*]	*vēsav*
sen	*vēsał*

or endings which were atrophied in classical middle Indian (3rd sg.):

Rom. (Eur.)	Nuri
kamav I love	*nanam* let me bring
kames	*nanay- (nanēk)*
kamel	*nanar*
kamas	*nanan*
[*kamen*]	*nanas*
kamen	*nanand*

Cf. Khowar *šer (šete)*, pl. *šeni ;* Kal. sg. 3 *dali* opposed to 1 *dem*, 2 *des*.

The others approximate to the common middle Indian type without any uniformity.

The -*s*- of the 2nd sg. and the -*nt*- of the 3rd pl. (with phonetic variants) are preserved in some languages, as well as in Marathi shown above, e.g.:

Poguli (S. Kash.)	Nepali	O. Maithili	Bengali
I shall beat	I shall make	I see	I go
phāra	*garū*	*dekhõ* (mod. *dekhī*)	*cali*
phārus	*gares* [*gar*]	*dekhasi (dekh)*	*calis*
phairi	*gare*	*dekhahī (dekhe)*	*calai*
phāram	*garaū*	*dekhõ (dekhī)*	*calõ*
phāruth	*gara*	*dekhõ*	*cala*
phārun	*garun*	*dekhath^i*	*calant(i)*
			calañi calen

But Oriya, which preserves 3rd pl. *dekhanti*, has 2nd sg. *dekhu*. Kashmiri has an obscure 2 sg., which may possibly be compared with 2nd pl. -*g*, -*k* in Ashkun and 1st pl. -*k* in Gawarb. and Kal. (partially); Nuri 2nd sg. -*k* appears to be local. In other respects it is almost completely in step with Poguli: sg. 1 *gupa* I shall hide, 3 *gupi*; pl. 1 *gupaw*, 2 *gupiw* (use of the vowel of the causative to avoid conflict with the 1st person?) 3 *gupan*.

The 2nd person singular seems a weak point in the inflexional system. In Apabhraṃśa it may well come from the imperative; the close relation of the indicative and imperative is, indeed, proved by the 2nd pl. *karahu* (for Pkt. *karaha*) which can only come from the third persons *karau*, pl. *karantu*, supported moreover by 1st pl. **karamu* or *karahuṃ*, a contingent present naturally adapted to the imperative. But the amphibology, which the facts show to be tolerable in the plural, has, it seems, been found awkward in the singular, in which 2 *karasi* was supported by 1 *karami* and 3 *karai*. The impossible *kara* and the unrhythmical *karehi* were replaced in the indicative by *karahi*, which fitted well into the singular system and was in clear opposition to the plural *karahu*. This innovation had the further advantage of keeping -*s*- for the future.

Another difficulty was caused by the phonetic clash of the first persons of the singular and plural, at least in Apabhraṃśa and the languages connected with it. Indeed it seems that in this group the 1st sg. pronoun *hauṃ* has made general a new ending, which is attested from the earliest Middle Indian: Jātaka *anusā-sahaṃ* I govern etc. In Apabhraṃśa the *h* appears no longer in the singular, while it has been recently annexed by the plural,

presumably under the influence of the second person in -*hu* and perhaps of the aspiration in Pkt. *amho* we are, we.

We have, then:

1st sg. *karaum* pl. *karahum* (Bhav. *karaham*)
2nd *karahi* *karahu*
3rd *karai*

This is the prototype of the western group: we may add to the Sindhi, a paradigm of which is given p. 245:

Lahnda	*mārā* I may strike	Cameali	*mārām*
	mārẽ		*māre*
	māre		*māre*
pl.	*mārāṃh*		*mārām*
	māro		*mārā*
	māren		*māran*

p. 248 Cf. also in Garwhali sg. 1 *mārūṃ* 2 *mārī* 3 *mār*, in Kumaoni 1 *hiṭū*, I go, 2 *hiṭai* 3 *hiṭ*.

Panjabi marches with Lahnda, except for a 1st plural in -*ie*, which seems to come from a singular passive of Middle Indian and is found again in Gujarati, Maithili and middle Bengali.

Finally, there is an innovation in the central languages, which is attested in Apabhraṃśa and concerns the 3rd pl. *karahiṃ*, which cannot be phonetic, to judge from the 3rd pl. impv. *karantu* and the present participle sg. masc. *karantu*, fem. *karanti*. It is plain that the relationship of the third persons sg. *karai*, pl. *karahiṃ* corresponds to that of the first persons sg. *karaum*, pl. *karahum*; the general effect obtained is that of endings made up of two shorts, a rhythm which was broken by -*anti*. A doubt remains from the fact that -*ahiṃ* is already attested in the Prakrit Uttarādhyayana: but there is nothing to prevent us from supposing that a vulgarism later admitted by Apabhraṃśa as normal could have slipped exceptionally into the Jaina canon.

The Apabhraṃśa type is found in Gujarati and Rajasthani:

	Gujarati	O. Gujarati	Jaipuri
sg. 1	*cālū*	*nācauṃ* I dance	*caḷūṃ* I go
	cāle	*nācaṃ, nācaiṃ*	*caḷai*
	cāle	*nācai*	*caḷai*
pl.	(*cālie*, but fut. *cāliśū*)	*nācauṃ*	*caḷāṃ*
	cālo	*nācau*	*caḷo*
	cāle	*nācaiṃ*	*caḷai*

and in Awadhi (Lakhimpuri) :

sg.	*calaŭ*	[*calī*]
	calai	*calo*
	calai	*calaī*

In the centre of this group, Hindi and Braj have another unexplained peculiarity, the identity of the 1st with the 3rd plural:

		Braj	Hindi, Bundeli
sg.	1	*calaŭ, calū*	*calūṃ*
		calai	*cale*
		calai	*cale*
pl.		*calaī*	*calẽ*
		calau	*calo*
		calaī	*calẽ*

These languages, therefore, have an independent development, even those which have most characteristics in common with Apabhraṃśa.   Another proof is found in Chattisgarhi, which has the new forms of the 2nd and 3rd plural, but retains the archaic 2nd singular:

sg.	*ghucaŭ* I may move	pl.	*ghucan*
	ghucas		*ghucau*
	ghucai		*ghucaī*

Bhojpuri has both *bāṛas* and *bāṛe* thou art, *bāṛe* having at the same time the force of 'he is'; influenced, no doubt, by Hindi.

Singhalese inflexions, which are independent, rest on the common scheme: sg. 1 *kam(i)* I eat *(khādāmi)*, 2 *kahi* 3 *kayi*, *kā:* pl. 1 *kam(h)u* (an intrusion of the verb 'to be'?), 2 *kahu*, 3 *kaṭ(i)*.

Imperative

The characteristic forms are those of the 3rd person: Skt. sg. -*atu*, pl. -*antu;* whence sg. Mar. -*o*, Or. -*u*, Beng. -*uk*, pl. Mar. -*oṭ*, Or. -*antu*, -*untu*, Beng. -*un*.   Note Khow. sg. *diyār* let him give, which apparently represents *dadātu*.

In the 2nd sg. the normal form is the simple root, the Skt. Pkt. -*a* having been dropped.   Literary Prakrit very often has long endings: *karasu, karesu* do, the ending of which is Sanskrit *si* or -*sva* adapted to the 3rd sg. -*tu* (see p. 233); *karehi* do, arising from the transference of the old Skt. athematic ending -*(d)hi* to the causative stem.   *Karāhi* is also found in Jaina Prakrit with the same rhythm, and, as we have seen, the Apa. *karahi*, which

derives from it, is used also in the indicative. The *karehi* type
has been preserved in Braj and gives OWR *kari, kare, sevi*, O. Mar.
sāṃghē say, *karīṃ* do.

Sindhi distinguishes the intransitive *veh^u* sit down, from the
transitive *mār^i* strike. Marathi has acquired a 1st sg. in *-ūṃ*
with a vowel similar to that of the plural, under the influence of
the characteristic vowel *u*.

<p>p. 250</p>

Future

The sigmatic future, inflected like the present, disappeared
except in a restricted area. While still current in Apabhraṃśa,
it left rare and dubious traces in old Bengali, and is not to be found
in Panjabi, Sindhi and even in the old Marathi and Singhalese
texts. In eastern Hindi and Bihari, it is blended with the parti-
cipial forms, and has to compete with composite forms in Jaipuri
(suffix *-s-*), Marwari, Braj and Bundeli (suffix *-h-*). It exists no
longer in a true sense, except in Gujarati and Lahnda, and outside
India in Nuri. In Kashmiri it has taken the meaning of the past
conditional.

		Gujarati	Lahnda
Sg.	1	*mārīś* I shall beat	*maresāṃ*
	2	*mārśe*	*maresẽ*
	3	*mārśe*	*maresī*
Pl.	1	*māriśū*	*marsāhāṃ*
	2	*māriśo*	*mareso*
	3	*mārśe*	*maresiu*
		Nuri	Kashmiri
Sg.	1		*gupaha* I should have hidden
	2		*gupahakh*
	3	*manyari* he will stay	*gupihe*
Pl.	1	*janyani* we shall know	*gupahaw*
	2		*gupihiw*
	3		*gupahan*

I. SANSKRIT

In Sanskrit as in Indo-iranian and Indo-european verbs have nominal as well as personal forms. Some are substantives confined to certain cases and capable of government; others are adjectives, which may be classed according to voice and tense.

Action nouns. Infinitive and Absolutive

In Indo-european, a noun, which approximates a verbal root in meaning, is capable of government like the verb itself; in this respect Vedic reproduces the prehistoric usage. Action nouns, therefore, may be formed in two ways. First, by nominal construction: *sómasya bhr̥thé* while the soma is being brought; secondly by verbal construction: *yajáthāya devān* for the worship of the gods; and with the same word *dāváne*, nominal construction: *gotrásya dāváne*, for the gift of the cowshed; verbal construction: *máhi dāváne* for the gift (of) much. The verbal use is normal with the oblique cases of some nouns, and is then the equivalent of an infinitive: *jajanúś ca rājáse* and they have created (him) to reign, *párám étave pánthāḥ* road for going to the further side. Naturally, they do not express voice: *stuṣé sá vām... rātíḥ* your generosity is to be praised, *ná... asti tát atiṣkáde* it is not to be despised. The complement alone gives the idea of it: *nányéna stómo ánvetave* hymn to be equalled by none other.

Thus the Vedas employ words in cases which may express the aim—the accusative and especially the dative (also certain apparent locatives, really old datives with a zero grade ending, see Meillet, *BSL*, XXXII, p. 191)—and, after prepositions and verbs requiring it, the ablative. The genitive occurs only after *íś-* to be able, for which it is the normal construction.

The stems are constituted: (i) by the simple root: *dr̥ṣé* to see; RV, VIII, 48, 10: *indram pratíram emy áyuḥ* I go to Indra to prolong life; (ii) by derivatives of the root, sometimes in *-man-* and *-van-*: *vidmáne* to know, *dāváne* to give; particularly by masculine and

feminine nouns: -*i*- being very rare (*dṛśáye* to see) and -*ti*- (-*pītáye* to drink) rare, which corresponds to the fact that in Vedic as in Indo-european nouns in -*ti*- hardly existed except in compounds; -*tyā* only in *ityái* to go, and -*tu*-, which is much the most frequent (*dátum* to give, *gántave* to go, *pátavái* (from *pátave vai) to drink, *gántoḥ* to go); finally (iii) by derivatives of verbal stems: *puṣyáse* (root *puṣ*-) to prosper, *ṛñjáse* (*ṛj*-) to gain, and especially -*(a)dhyai*: *iyádhyai* to go, *nāśayádhyai* caus. to make to disappear.

These latter formations, which like several of those preceding them have correspondences in Iranian, are of interest as marking the beginnings of a close link with a finite verb. And it would seem indeed that an infinitive category is being created in Sanskrit; the dative forms, at first seven times more numerous than the rest, are eliminated, and -*tum*, rarely represented in the earliest texts, gains ground to the extent of becoming the sole form in the classical language. But literary Middle Indian remains faithful to the dative: As. *khamitave*, Pa. *dātave* (Pa. *etase* to go, is unique and suspect) and even creates new forms in the dative system, as Pa. *hetuye* to be, opposed to As. *bhetave*, Pa. *dakkhitāye*, Jaina Pkt. -*(i)ttae* beside -*(i)uṃ*. We also find nouns in -*ana*-, which carry the day, but not until modern times. The Sanskrit system, therefore, has not been consolidated.

The action nouns in -*ti*- and -*tu*- (and certain of their derivatives) employed in the instrumental, had the power of expressing a condition previous to the action expressed by the principal verb. This is known as the absolutive (see p. 284).

Agent nouns. Participles

Adjectives and agent nouns drawn directly from verbal roots readily retain the power of the verb to govern: RV *kāmí... asya pītím* desiring his drink, *dadir gáḥ* giving cows, TS *kámukā enaṃ striyo bhavanti* the women fall in love with him. Patañjali cites *odanaṃ bhojako gacchati* he goes to eat the soup, where the adjective assumes the force of a future participle. It is in this direction that the agent noun in -*tar*- will eventually develope: in the Ṛgveda, side by side with numerous constructions with the genitive, it is capable of governing the accusative, e.g. IV, 17, 8:

> *hántā yo vṛtráṃ sánitotá vájam, dátā maghá̄ni...*
> slayer of Vṛtra, gainer of booty, giver of presents.

This noun was even welded fairly soon to the 1st and 2nd persons of the verb *as*-, becoming invariable (for the 3rd person the rules of the nominal sentence remained valid). From this was formed

a future incorporated in the conjugation *dātāsmi, dātāsi, dātā* etc.: in the middle **dātāse*, which was impossible beside the 2nd sg. *dātāse*, was replaced by *dātāhe* formed on the model of the nominal group *dātāham, dātāse* etc.   According to Pāṇini the force is that of a remote future; in point of fact the rule is ill observed by the texts.   It was indeed a form which remained somewhat rare in the early period and was not carried on into Middle Indian.

From Indo-european onward certain adjectives were connected not only with roots but with verb-stems.   They are in Sanskrit:

(i) formed on the root: the adjectives in *-ta-, -na-* and their derivatives expressing the result, that in *-ya-* expressing the destination, and the derivatives and combinations with one another;

(ii) regularly distributed over the stems and capable of governing —the participles proper; see also, p. 108, 110.

Temporal participles

These rest upon Indo-european formations, but are not identical with them.   There are in the active:

(i) The participles with the suffix *-ant-* alternating with *-at-*. Athematics: masc. sg. acc. *sántam* being, gen. *satáḥ* corresponds to Av. *həntəm, hatō* and the alternation is the same in the thematics: *bhávantam*, gen. *bhávataḥ* being.   In the reduplicated athematic verbs Sanskrit uniformly uses *-at-: dádatam, dádataḥ* giving.   This is an Indian peculiarity probably archaic.

These participles are common in the present, rare in the aorist (where the middle participle often occurs) and are met with in the future, so far as the future is employed.

(ii) The perfect participles with the *-vāṃs-: -uṣ-* suffix, replaced p. 254 in certain forms by *-vat-*, which is Indo-european.   But the distribution is nowhere the same and *-vat-* is wanting in Iranian.

In the middle there are two forms, which are not distributed according to tense, but according to stems:—in the athematics *-āna-*, which is Indo-iranian; in the thematics *-(a)māna-*, which is peculiar to Indian and results from the adaptation of Indo-iranian **-mna-* to the first form (see Benveniste, *BSL*, XXXIV, p. 8).   And is the form *-mīna-* of East Asokan and the Āyāranga-gasutta an early **-m⁰no-*, giving **-mina-*, the rhythm of which is assimilated to *-māna-?*   We must also take into account Skt. *āsīna-* from *āste* sit, and Pkt. *melīna-* from *melai* mix, which are isolated.

The distribution of voices in the participles is only secondarily

constant. In the Veda the participles in -(m)-āna- commonly correspond to active forms of the finite verb; the contrary is distinctly rare. In reality -māna-, the only surviving form, is extended to the present stems of active verbs in the Buddhist and Jaina canons (Pa. As. *samāna*-, Pkt. *samāṇa*- being, from *atthi* he is; etc.).

Verbal adjectives

I

The adjectives in -*ta*- (-*ita*- in the derivatives in -*aya*-), in Sanskrit as in Iranian and Indo-european, indicate the result of the process denoted by the root: *bhūtá-(bhū-)*, Av. *būta*- become; *mr̥tá-(mar-)* Av. *mərəta- məša-* dead; *yuktá-* yoked (*yuj-*), Av. *yūxta-* welded; *pr̥ṣṭá- (pr̥cch-)*, Av. *paršta-* questioned, *jātá-*, Av. *zāta-* born (from *jan(i)* to beget), *śritá-(śri-)* fixed, installed, Av. *srita-* placed, trusted; *śrutá-* known, celebrated (*śru-* to hear, listen), Av. *sruta* audible, recited, famous. It is obvious that there is no fixed semantic relation to the verb. It is, however, close enough for this adjective to become a past participle of the passive voice so far as one has developed. It is a very regular formation. The zero grade of the root is a constant (except in the root *dā-*, where *tvá-dāta-* given by thee, and *dattá-* given, have been reformed in order to avoid clashing with *ditá-* bound), while this is not so in Avestan.

Sanskrit has made an innovation by assigning this same function to the adjective in -*na*-, which was, in fact, parallel to -*ta*- in its origin, formation and meaning. Indo-iranian used it: Av. *frīnāspa* Gk. *philippos*, cf. *prīṇayati* and on the other hand Vedic *prītá-* of good will, applied to horses, cf. Av. *hvā-frīta-* much loved; *ūná-*, Av. *ŭna-* incomplete, are attached to a root of which Av. *uyamna-* is the present participle middle; but the verb itself is wanting. Where it exists, the formations do not necessarily correspond: Sanskrit has *pūrṇá-* from Indo-eur. *pl̥̄*, while Avestan has *pərəna-* as if from *pl̥*.

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Sanskrit is original in making a regular participle of this adjective, used principally in dissyllabic roots with liquids: *pūrṇá-* (*pūrtá-* has taken a special meaning), *stīrṇá-* strewn; roots with a long vowel: *hīná-* abandoned, beside *jahitá-* from *hā-* (*hitá-* is the participle of *dhā-* to put), *diná-* cut, from *dā-* (the other *dā-* roots have for their participles *ditá-* fastened, *dattá-* given); finally, roots ending in a dental: *bhinná-* broken, from *bhid-*, *skanná-* jumped, from *skand-*.

The connection with the verb is not always very close and the construction remains adnominal: MS *pátyuḥ krītá satí* woman bought by her husband, TS *asya prītáni* encouraged by him. There is no fixed voice: *gató... ádhvā* is 'the road traversed', but *gatá-* ordinarily means 'who has gone'. The tense even is not necessarily past: like the perfect, this adjective has various imports. It indicates the past in opposition to the ingressive present in RV I, 110, 1 : *tatám me ápas tád u tāyate púnaḥ* my work is finished; and lo, it is being finished over again. In the Bhagavadgītā II, 27 we read: *jātasya hi dhruvo mṛtyur, dhruvam janma mṛtasya ca* what is born is sure to die and what is dead is sure of being born. But the preceding verse says: *atha cainam nityajātam nityam vā manyase mṛtam* even if thou didst think it is born or dies indefinitely.

It is this force which accounts for the ease with which these adjectives are turned into substantives: *jātáḥ* son, *jātám* what is born, *jivitáni* lives, kinds of life, *yuddháni* fights, *āśitam* repast, cf. Pali *gatam* step, *sangāme matam* (the fact of being dead) death in combat. From *aśitá-* as from any other substantive and with the same sandhi, the Atharvaveda forms a possessive adjective (*áśvāvant-* owner of horses) IX, 6, 38 (prose hymn) *aśitávaty átithāv aśnīyāt* once the guest is provided with a meal, let him eat. The more the verbal force of the first term is strengthened, the better able is this adjective to become equivalent to the perfect participle active, which for its part was going out of use. Patanjali, indicating the possibility of employing the participles alone with the force of perfects, puts *kvā yūyam uṣitāḥ* where did you live? *kim yūyam tīrṇāḥ* did you cross? on all fours with *kim yūyam kṛtavantaḥ* did you do? *kim yūyam pakvavantaḥ* did you cook? (*pakva-*, cf. Pkt. *pakka-*, serves as the participle of *pac-*). In actual fact, as we shall see, the new participle in -*tavant-* had only a temporary currency.

II

While the adjectives in -*ta-* were becoming ready for incorporation into the conjugation, being given the lask of expressing the past, other stems, which from the Indo-european period had expressed possibility or purpose, were beginning to make it feasible to render the future by a verbal noun.

Two forms have not survived: -*t(u)va-* (*hántva-* to be killed, Av. *jqθwa-*) is hardly to be met with except in a dozen words in the Ṛgveda; rarer still is -*ata-*, the form of which, it must be said, is not characteristic: *yajatá-* to be honoured with a sacrifice, Av. *yazata-*: *darśatá-* visible, fine, cf. Av. *surunvata-* audible.

On the other hand *-(i)ya-* is common: *dárś(i)ya-* to be looked at, beautiful, Av. *darəsya-* visible; with another vocalism *dŕś(i)ya-* visible; *bhávya-* and *bhāvyá-* future, which must happen, *déya-* to be given. This suffix has been ·extended from the Vedas onwards to derived stems and to a variety of roots: hence *śraváyya-* glorious, made from the causative, *stuṣéyya-* to be celebrated, made from the infinitive *stuṣé; didṛkṣéya-* worthy of regard, made from the desiderative stem; *váreṇ(i)ya-* to be desired, dear, an unexplained but common type, adapted to secondary stems *didṛkṣéṇya-, vāvṛdhénya-* to be glorified; finally and especially when based on verbal nouns, *śrútya-* to be heard, *anānukṛtyá-* inimitable, *carkŕtya-* worthy of being celebrated. In the Atharveda there appear two more new types: one derived from substantives, at first from compound substantives exclusively: *āmantraṇīya-* worthy of invitation (*āmantraṇam* invitation; the close connection of the nouns in *-ana-, -anā* with the infinitive has been noticed above); and the other, *-tavya-*, which seems to be prehistoric (Gk. *-téos*), is certainly connected with the *-tu-* stems and is indirectly related to the adjectives in *-t(u)va-*. But it takes its place also side by side with the verbal in *-ta-* and consequently with the new participle in *-tavant-*, which is the beginning of its popularity.

Participles may be placed in apposition with nouns of various types in the sentence: RV IV, 18, 12: *śayúṃ kás tvám ajighāṃsac cárantam* who wished to kill thee, lying (noun) or walking? (participle). They do not lose on that account their ability to

govern as verbs: IV, 18, 11: *áthābravīd vṛtrám índro haniṣyán* said Indra on the point of killing Vṛtra; *ahūṣata rájantam adhvarā́ṇām agním* they invoked Agni who rules the sacrifices; I, 148, 2: *juṣánta víśvāny asya kármópastutim bháramāṇasya kāróḥ* let them love all the works of the poet who brings the hymn. The participle is used in apposition in the direct cases for preference and generally without a complement. And in this way, so it seems, it continues to be used: Jātaka V, 290: *Bodhisattaṃ pi kilantindriyaṃ vīthiyaṃ gacchantaṃ aññatarā itthī disvā* while the B. was going along the street tired, a woman having seen him...

The present participle has little syntactical independence. It is freely used with verbs indicating situation or movement: *víśvam anyó abhicákṣāna eti* the other goes looking at the universe; but the elasticity of the substantival clause does not extend to allowing it to take the place of a verb; cases like those to be found in I, 171, 4; III, 39, 2 are only apparent. It is not so with verbal adjectives. The verbal in *-ta-* is opposed to a personal form in RV I, 81, 5 *ná tvávāṅ Indra kás canā́ ná jātó ná janiṣyate* no one

like thee, O Indra, has been born or will be born.   Similarly with
the future participles: *ripávo hántvāsaḥ* the enemies (are) to be
killed; *yá éka id dhávyaś carṣaṇīnám* who (is) the only one to be
invoked by men.

This use becomes more and more frequent, when 3rd persons
are concerned.   When it is a question of other persons or of other
tenses than the present, either pronouns or *as-* and *bhū-* and later
āste, vartate, etc. are introduced; RV *yuktás te astu dákṣiṇaḥ* let
thy right-hand (horse) be yoked; MBh *kenāsy abhihataḥ... kimar-
tham abhihataḥ* by whom hast thou been beaten... why has he
been struck?

So used, the verbal in *-ta-* denotes completion and is therefore
substituted for the perfect in its old sense.   This is why free use
of it is made in the 3rd person: *agnir upasamāhito bhavati* means
"the fire is alight" and not "the fire has been lighted".   But this
use was restricted in the course of time.

The verbal with passive sense may have a complement in the
instrumental, to express the logical subject: for example RV
VIII, 76, 4:

> *ayáṃ ha yéna vấ idám svàr marútvatā jitám*

It is he, by whom with his troup of Maruts this celestial light
has been conquered.

p. 258   In the same way we find already in AV, V, 18, 6 a participle
of obligation without, however, the noun in the instrumental.

> *ná brāhmaṇó hiṃsitavyò 'gniḥ priyátanor iva*

The Brahman is invulnerable, like fire to a man who values his
life.

Similarly we read in Asokan at Girnar: *iyaṃ dhammalipī...
rā(ñ)ñā lekhāpitā, idha na kiṃci jīvaṃ ārabhitpā prajūhitavyaṃ
na ca samājo ka(t)tavyo* this edict was engraved under the orders
of the king; let no life be here sacrificed nor any assembly be held.

In the Rūpnath series we notice that *sumi (hakaṃ) saṃghaṃ
upagate (upete)* and *mayā(me) saṃghe upayāte (upayite)* I have
joined the community, are equivalent expressions.

A peculiar case is where the verbal in the neuter nominative is
equivalent to an impersonal verb in the middle-passive: as may
be said (but rarely at an early date) ŚBr. *tapyáte* there is warmth,
MS. *ṛdhyáte* it succeeds, *sám amate* an oath is made, so too may be
found RV. *śráddhitaṃ te* confidence was placed in thee.   This
verbal adjective can eventually be combined with the logical
subject in the instrumental: TS. *tásmāt samānátra tiṣṭhatā hotavyàm*

so the sacrifice must be made standing in the very place, MS. *agnihotriṇā nāśitavyàm* an agnihotrin should not eat.

Sanskrit, then, has acquired a new preterite, but with a neuter or passive meaning: hence the purely classic use (the first example is in Manu) of the derivative in *-tavant-* without a copula with the force of the corresponding active participle.

On the other hand, of the six participles of obligation known to the Veda, those in *-ya-* and *-tavya-* (which appears in the Atharvaveda) gradually assume the character of a future of possibility: but this is a late development, on all fours with the development of the impersonal passive.

2. Neo-indian

Participles

The only forms of those reviewed above, which have survived to modern times are the present participle and the past and future verbal adjectives. The future participle has already disappeared in Pali and in Ardhamāgadhī, except for some remnants, which p. 259 have become thematically inflected, e.g. Pa. *marissaṃ* acc., Amg. *āgamisse* loc. The old perfect participle is no longer recognizable, except in forms dissociated from the conjugation: *vidvā* wise; the new types *vidu*, *viddasu* are really adjectives, and the adjectives in *-tavant-* have equivalent by-forms in *-tāvin-*, which stamp them as adjectives rather than participles: *bhuttavant-* and *bhuttāvin-* satiated, cf. RV. *māyāvant-* and *māyāvin-* magician. Both forms are, moreover, rare; all the more because the verbal in *-ta-* furnished a simple and supple means of expressing the past; and with this past in *-ta-* are grouped the Asokan *-tavva-*, Pali *-tabba-* to express the future. But one serious result ensued from this. In a normal verb the present is transitive or intransitive, but the past and future participles are perforce intransitive or passive. Henceforward, opposed to a transitive present, the past and future have to be constructed passively. This dualism is at the root of the modern verb.

Further, the prominence of the past and future participles has had a repercussion on the present; and the present participle, which in the old language and even in Middle Indian never replaces the personal verb, has ended in becoming an equivalent for it.

Present participle

Forms:

The present participle active, which in Pali still preserves the old inflections (masc. sg. nom. *liṭṭhaṃ*, acc. *liṭṭhantaṃ*, pl. gen. *liṭṭhataṃ*), has gone over entirely to the thematic declension (Pkt. masc. sg. *jānanto*, pl. *jānantā*) and it is this new form which is perpetuated in the modern languages of the continent, either directly: O. Mar. *asata* being, *demta* giving, *karīta* making, *karijata* being made; Tulsi Das *sunata* listening to, *pūjiata* object of adoration; Bundeli *jāt* going, *det* giving: Braj masc. *māratu*, fem. *mārati* striking, etc.; or (and it is this form which has generally supplanted the first) with an enlargement: Hin. masc. sg. *kartā* making, OWR *karatau* making, *kījatau* being made (cf. Pkr. *kijjai*, Skt. *kriyate*), O. Guj. *paṭhatau* reading, *paṭhītau* being read, Or. *dekhantā* seeing; and with the western treatment of *-nt-*: Panj. *mārendā*, *māraṇḍā*, *mārḍā* striking, Sdh. *halando* going, *mārīndo* striking. Maiyã possesses an indeclinable present *kūṭānt* I beat, thou beatest, he beats etc., *dit (*dento)* he gives, which is presumably based on the same participle. Kashmiri, on the contrary, has nothing like this and the nom. pl. of participles in *-anda-* which appear in the Mahānaya-prakāśa (Grierson, § 243, cf. § 240) are perhaps just the third persons of verbs, which would otherwise be wanting.

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The middle participle, still frequent in literary Middle Indian, appears to reoccur in a certain number of modern forms. Thus Gawb. *mimān* from Skt. *mriyamāṇa-* (Turner, *Position of Romanī*, p. 33), Kal. *īman* (I was) coming, *ṭiman* beating. It must, however, be admitted in this case that the participle has provided a personal conjugation in Gawarbati: for *θlīman* beating, is the participle of *θlīmem*, *θlīmes...* I beat, thou beatest etc., and there is accordingly a present stem *θlī-m-* which is opposed to the past stem *θlī-t-*, the *-t-* of which however, does not carry on Skt. *-ta-* to judge from *mī(mṛta-)* dead, or *bliai (bhrātṛ-)* brother. And perhaps reference should be made to the fact that the Iranian Parachi possesses an absolutive in *-amān* (*xaramān* having eaten), obscure though it is.

The athematic form, Skt. *-āna-* is rare in literary Middle Indian. It is surprising therefore to find that it apparently has descendants, in the passive participles (with a past sense) of India proper or in the active participles of Dardic and Singhalese (*kana* eating, *kapana* cutting).—In the former case the premature disappearance

of the first nasal of -*amāna*- may readily be admitted, but there is no evidence in support of this for the period in which the -*v*- of the causative, for instance, remains intact.   In the latter case, the nouns in -*ana*- of Pali also recur to the mind, used especially as the first members of compounds: *dvīhi pādehi vicaraṇa-makka-ḷaṃ* a monkey which walked upright, *heṭṭhā vasanaka-nāgarāja* the dragon which lived at the bottom (supplied by Helmer Smith); but the analysis of the modern forms is uncertain and, besides, the long vowel in Dardic would still be a difficulty.

One has still greater hesitation in recognising them in the Kati type *acūnan* running, *vināgan* striking (derived from the infinitive), which is coexistent with *awēl* bringing, and *alle* coming (the latter indeed seems to trace back to the participle in -*ant*-).   The Ashkun present is based on a nasal stem, which can as well be traced back to the active participle as to the other, cf. *kõn* they do *(-nti)*. Kashmiri has a noun of agency *gupawan*[u], fem. -*wuñ*[ü] hider, O. Kash. *vasavānē*, fem. -*vāñī* dwelling in, beside the infinitive verbal noun *gupunu*, obl. *gupön*[i] while hiding, Skt. *gopana*-. It is uncertain what connection these forms have with the indeclinable *gupān* which serves to form the present: *bŏh chus gupān* I am concealing.   It may be remarked that Pahlavī -*ān* still preserved the middle form: this might be a coincidence of early origin or due to borrowing and it may be recalled that infinitives in -*ik* of the Iranian type are common in this area.

p. 261   The origin of OWR -*āṇau*, W. Gujarati and S. Sindhi -*āṇo*, endings of the passive participles (*bharāṇo* (was) filled, *marāṇo* (was) killed) would seem clear, if there had not been in these languages a passive morpheme in -*ā*- (p. 240)—or was the passive morpheme extracted from the participle?—, if we had not the same forms with a future sense (Sind. *māriṇo* (from the active stem) on the point of being struck, Bhili *paḍwāno* on the point of falling) cf. Guj. *cālvāno*, p. 289), if, lastly, there were not obviously derivative nouns of similar appearance; Kabir has *bikāno* sold, but *garabāno* boasting.   Equally to be acknowledged as derivatives are participles with a neuter meaning like *calā* action of going, *karā* action, the Bengali passive participles, apparently derived from the causative in -*ā*- (borrowed? they are lacking in other languages of the group: contrariwise the Assamese type *karaōlā* causing to do, *khuwāōlā* feeding, has nothing to correspond to it in Bengali): Beng. *sukhāna* dried, *hārāna* lost; but also *karāna* made, and *ṭhengāna* cudgelled, derived from a noun.

Uses:

We saw that in Sanskrit as in Indo-european the present participle was placed in apposition to some substantive in the sentence, the word being, at least in principle, in some case and number. This freedom was preserved throughout the whole of Middle Indian up to the threshold of the modern languages. Apabhraṃśa examples:

Dhvanyāloka, IX cent. (Pischel, *Materialien*, p. 45)

mahu mahu tti bhaṇantaaho vajjai kālu jaṇassu

for the man who says (gen.) "It is mine, it is mine", the time passes.

Sarasvatīkaṇṭhābharaṇa, X cent. (*ibid.*, p. 49 and 60)

diṭṭhī pia paiṃ sammuha jantī

by thee has been seen my loved one, going (nom.) to meet thee.

pia panthahiṃ jantauṃ pekkhami I see the beloved going (acc.) on the road. Bhavisattakaha, XI cent.

21, 1 *nāhu viraccamāṇu pekkhantī paricintai maṇi kheijjantī* seeing (nom.) her spouse abandoning her (acc.) she reflects, tormenting herself (nom.) in her heart.

57, 8 *pekkhai tāma samuddi vahantaiṃ... jalajantaiṃ*

he sees the ships floating (acc. pl.) on the sea.

156, 3 *diyahaiṃ tīsa gayaiṃ cintantie aṇudiṇu puttāgamaṇu sarantie*

p. 262 thirty days passed while she was thinking and recalling (obl. fem.) every day the coming of her son.

It will be noticed that in this sentence the participle has a complement.

But as soon as one has to do with a modern language, the participle is only found in, the direct case on occasion with objective force. O. Beng. (Kāṇha):

<div style="text-align:center">

mūḍha acchante loa na pekhai

dūdha majheṃ laḍa acchante na dekhai

</div>

the world being stupid does not see; it does not see butter present (obj.) in the milk.

Tulsi Das:

taba sakhī maṅgala-gāna karata

then the companions singing (sub.) auspicious songs.

āvata jāni Bhānukulaketu

having known (that) the standard of the Solar race (was) arriving (obj.).

carana parata nṛpa Rāma nihāre

Rāma sees the king falling at his feet

Old Guj.

śiṣya śāstra paṭhatau ⎫
śiṣyĩ śāstra paṭhĩtau ⎬ *hauṃ sāṃbhalauṃ*
⎭

I listen to the pupil reading the book, the book read by the pupil.

Beside which the oblique case occurs only in absolute construction:

Gopāliiṃ gāe dohītie Caittu āviu

Caitra arrived as the cows were being milked by Gopāl *(Gopālena goṣu duhyamānāsu)*.

European Romany stabilised the nom. sg. masc. in an adverbial use: Hungarian *rovindo* weeping, while weeping (enlarged in Greek and Bohemian by the *-s* of the nominative: *rovindos*, and by emphatic *-i* in Roumanian and German: *rovindoi*).

But from the moment when the participle could no longer be placed in apposition with any noun, its function changed. This is to be seen, for instance, in the enlarged form in Marathi, in which there is no longer anything but an adjective: Mar. *vāhātẽ pāṇī* running water, O. Mar. *paḍhiyantāṃ ṭhāyīṃ* in a pleasant place, *vāḍhatẽ jhāḍa* growing tree; and similarly in the unenlarged form in Assamese *jīyat māch* living, fresh fish. It has become a substantive in Assamese *rakhōtā* protector, *karōtā* he who does, Guj. *jatā āvtā-no jevo* like people coming and going. To give it its old force, it is necessary to place in apposition with it an auxiliary verb, in particular the verb "to be": OWR *jāgatau hūṃtau* waking-becoming, *dekhatau karatau* seeing-making; Hin. *Jarasandh bhī yō kahtā huā un ke piche dauṛā* J. also ran after them saying thus.

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In fact the former participle has henceforth only two functions; in the direct·case it takes the place of the personal forms and in the oblique case, it helps to form absolute constructions.

I

It is consonant with the principle of the substantival sentence that the present participle should have by itself the force of a verb in the present tense (cf. p. 257). In point of fact, this only happens later on and perhaps is due to parallelism with the past participle. We find in Old Marathi:

udaka teṃ akhaṇḍa asata water is indestructible;
tetha tinhī loka ḍaḷamaḷīta
tetha samudrajala usaḷata kailāsavarī

there the three worlds tremble; there the ocean-water froths up to Kailāsa;

and with the enlarged forms: *mī karalā* I make (masc.), *tī hotī* she is, *te marate* they die.

In Tulsi Das:

rāu Avadhapura cāhata sidhāe the king wants to betake himself to Oudh;

sirāti na rāti the night does not end.

Similarly in Sindhi poetry.

This use is rare nowadays except in Dardic (see above) and in Panjabi (Dogra *āū mārdā* I strike). The force of the true present is obtained, as will be seen, by affixing an auxiliary. As against this, values are found which derive from a sense of contingency, viz: the future and the durative past.

The future sense is seen in Sindhi: *halando* he will go, *halandī* she will go, *halandā* they (masc.) will go, *halandiū* they (fem.) will go, and also, you (fem.) will go. The 1st and 2nd persons are expressed more accurately by suffixes, v. p. 275.

p. 264 In the Himalayas Jaunsari masc. *mārdā* fem. *mārdī* are used for all the 2nd and 3rd persons of the future. In Kiūthalī this form has a substantival value and takes on the sense of possibility with the negative: *māhre nīṃh dando* of us not giving, we cannot give, *tere nīṃh ḍeundo ānthi* of thee there is no going, thou canst not go.

We must here include the 3rd persons of the Maithilī-Māgahī group and the future base in eastern Bengali: *se dekhat* he will see.

In Apabhraṃśa, on the other hand, it has the force of a durative past; see for example strophe X in Pischel's *Materialien*, which is descriptive, or the following sentence of the *Bhavisattakaha* in which the two kinds of past are opposed to one another, 294.5:

jo ciru Aggimittu diu hontao, so eu Tilayadīu saṃpattao

he who was formerly the Brahman A. has arrived at Tilakadvīpa.

Simalarly, old Rājasthānī:

Bharatha-nai dinaṃprati olambhau detī

She was reproaching Bh. every day.

From this follows the habitual past in Gujarati *(cālto)* and the Hindi imperfect *(caltā* he was going).

But Prakrit and Apabhraṃśa also recognise another value, which results from the combination of the sense of contingency with the past tense: the past conditional. For Apa. see *Bhavis.* p. 41* and Pischel, *Mater.*, p. 11 strophe 351.

Old Rāj.

Jai rāga dveṣa na huta, tau ka ūṇa jīva duḥkha pāmata

if love and hate did not exist, then what being would feel pain?

Tulsidas:

jaū pai jia na hoti kuṭilāī

if there were not wickedness in his heart

hota janama na Bharatako

had there not been the birth of Bh.

Gujarati:

jo tame āndhlā hot, to tamne pāp na hot

if you were blind, it would not be a sin for you

Panjabi:

jo maĩ ghalldā if I had sent

Hindi:

jadi maĩ jāntā, to kabhi nahĩ jātā

if I had known, I should never have gone

Marathi distinguishes the conditional from the present partly

by its endings: old Marathi *tari mī na mhaṇatā jari na dekhatā* I would not speak, if I did not see; this is opposed to the present: *karito* he makes (for details see in the last instance Doderet, *BSOS*, IV, p. 865).

Maithili, too, has created a conjugated conditional: O. Maith. *dekhitahū* I should have seen, *karaithanhi* they would have made; nowadays, while the 3rd sg. masc. ending *at*, fem. *at^i* marks the present, that in *ait*, fem. *ait^i* marks the conditional. Bengali (from middle Bengali onwards has a comparable form):

ḍubiāṃ maritõ jabe nā thākita kānhe

I should have died by drowning, if Kṛṣṇa had not been there.

It is the same in Oriya and Assamese preserves traces of it in the fixed participle *hēte-n*, which being added to the past gives the verb a conditional sense.

II

Sanskrit and middle Indian tend to use a substantive in an indirect case, accompanied by a participle in apposition (v. p. 313), to express an adverbial clause (the nominative absolute resulting from asyndeton is rare). The case employed in the Vedas is the locative with a temporal value: *prayaty àdhvaré* while the sacrifice is progressing, *ucchántyām uṣásī* when the dawn is bright, *sū́rya údite* when the sun has risen. In the Brāhmaṇa psychological values are found: *varṣati* although it may rain, *rātryāṃ bhūtāyām*

because the night had come (similarly the genitive absolute, which appears in the same texts, takes later on the *anādare* sense: *rudataḥ prāvrājīt* despite his tears he renounced the world); but it is a secondary development. Pali has in the ordinary course *attham̐ gate suriye* after the setting of the sun, *gacchantesu sakaṭesu* as the carriages advanced.

The modern languages have preserved the idiom, the oblique naturally replacing the old locative. The oblique masc. singular is generally used:
O. Rāj. (O. Guj.):
meghi varasatai morā nācai
on the rain falling, the peacocks dance
Gopāliĭ gāe dohītĭe Caitru āviu
as the cows were being milked by G., Caitra came
p. 266   Tulsidas:
dekhata tumhĭ nagara jehi jārā
by whom the town was burnt before your eyes (you looking on).
Oriya:
calante medinī kampai
as he walks, the earth quakes.
Finally, the participle is joined to the real or logical subject of the principal clause, but without agreeing with it; the result is then an absolute construction.
Muhammad Jaisī:
jo bhūle āvatahi those who are lost while coming
O. Beng.:
calite calite tora ruṇujhuṇu bāje when walking thy bracelets tinkle
Beng.:
se nācite nācite āse he arrives dancing
Hindi:
ham gāte gāte sīti haĩ we (fem.) sew singing the while.
Similarly Nep. *jāndā* (obl.), *jām̐dai* (loc.) whilst going, Or. *dekhāte* going to see, Ass. *cāi thākhōte* as he was staying to look.

The participle thus becomes a veritable verbal noun, capable of being governed by a postposition: Marw. *āwtā nai* while coming (cf. *bāp nai* to the father), Nep. *ti chorā dherai farakai chām̐dā-mā tesko bābule dekhi* his father seeing this boy remaining at a great distance; and susceptible also to definition by an adjective: Lakhimpuri: *hamāre khātⁱ ma dundu na macāo* do not make any noise while I eat (in my eating); La. *mere aundeã moea* on my arrival he died.

This construction is parallel to that of the past participle, which from ancient times could be taken substantively. The Bengali infinitive is explained in this way: *jāite chi* I am going; *se tāhāke mārie lāgila* he began striking him; *se paṛite basiyā che* he sat down to read (properly "while reading"; cf. for the sense of purpose Kiunthali *sīw leunde* in order to fix the limit); *se cālite pāre* he can walk; *jāite dav* allow to go, and consequently *tāhāke jāite dekhilām* I have seen him go, in which *jāite* must not be taken to be in apposition with *tāhāke* as e.g. in Hindi *maĩ ne laṛke ko calte hue dekhā* by me the boy going was seen (I saw the boy-going).

In Marathi, Gujarati and Rājasthānī the absolutive is found with the same use:

Marathi:

   to caltāṃ. caltāṃ khālī paḍlā he fell whilst walking

   tyālā kheltāṃ myā pāhilem I have seen him playing

The combination of the participle with the absolutive of the participle of the verb "to be" is preferred when the subjects are ·different:

   āmhī khelat astāṃ, to ālā he arrived as we were playing;

   mī kām karīt astāṃ, āpaṇ kāhīm karīt nāhīm

   while I am working, you are doing nothing;

   myā jevitāṃnā tujhī ciṭhī vācūn ṭākalī

   I read your latter while dining;

   tulā hem kām kartāṃnā yet navhe

   it is impossible for thee to do (doing) this work;

Gujarati:

   bhaṇtāṃ paṇḍit nipaje one becomes a scholar by studying

   mane angrejī boltāṃ āvaḍe che I can speak English

Mārwārī:

   māhro māl magāwtāṃ gharī na karsīje-j

   he will not give half an hour to send for my goods.

Forms of juxtaposition

The equivalence described above of the nominative participle with a personal form of the verb is attested particularly in the early period of the modern languages. In the course of time a certain number of them have blended these participles with conjugated forms or have fortified them with verbal endings.

Efficient presents have thus been created replacing the old present, which had assumed a sense·of contingency. The process began with the juxtaposition of Pa. *acchati* (in succession to Skr. *āste*) with the present participle and later in expressions like Apa.

jā acchai pecchantu so far as he remains looking, looks. Old Marathi furnishes e. g. *mhaṇatu āhāsi* thou art saying, *mhaṇat-ase* he is saying, *to ase bolata* (the order is exceptional) he is saying, *galatī āhe* she is melting, *karitē* (neut. pl.) *āhāti* they make.

p. 268   Tulsidas *jānata ahaũ* I know (masc.), *jāṇatī haũ* I know (fem.), *jānate hau* you know.

Similarly Hin. *hote haĩ*, Nep. *bhanda chan* they are, Sind. *mārindo āhiā*, La. *mārindā hā*, Panj. *mārdā (mārnā) āṃ* I strike, Nuri *jāndo mi* I know. With a special meaning the verb *ho-* is added: Panj. *jāndā hovā* I may go (but *jāndā hundā hai* he keeps going), Sind. *mārindo huāṃ* (if) I were striking, I may strike, Guj. *h ũ utarto hoũ* (if) I descend, I may descend (the same sense as *utar ũ*).

The constant use of these formulas has caused the elements to be welded together, O. Mar. *dekhatase* he sees, *dekhatāsi* thou seest, *dekhatāti* thcy scc; La. *mārenāṃ* beside *mārendā āṃ* I strike. The Sindhi future has appropriately purely nominal forms in the third persons: *halando, halandī* he, she will go, *halandā, halan-diyū* they will go (masc. fem.) v. p. 263; but the second persons (except those of the fem. pl.) have verbal endings resulting from a contraction: *halandĕ, halandiĕ* from *halando, -dī āhē* thou wilt go, *halandó (halandā āhyo)* you will go; and similarly for the first persons, except that here the verb 'to be' comes from Skt. *asmi, smah*: sing. masc. *halandu-s^i*, fem. *halandi-as^i* I shall go (cf. *āndus* I should have come, from **ānd-āhō-s*); plur. *halandā sūṃ* or *sī* (this second form, originally a feminine participle is extended to the whole verb, under the influence of *ī* he is; the same distribution is found in Shina: 1 sg. *hanu-s, hani-s* (**bha-vanto-smi, *bhavantī-smi*) plur. *hane-s;* 2 sg. *hano, hanye*, plur. *hanet(-stha);* 3 sg. *hanu, hani*, plur. *hane*.

In the eastern group, where the oblique of the participle has taken on a nominal or infinitive value, it may be classed with the verb "to be": Beng. *calite che* he is walking, a construction comparatively recent in Bengali proper, but attested from the 15th century in Assamese literature. So probably in O. Maithili: *goṛ lagait chī paĩyāṃ parait chī* I embrace your knees, I fall at your feet; with a far advanced "verbalisation" in mod. Maithili, Māgahī and Bhojpuri.

The same formula is found again in Lakhimpuri, in the singular at any rate: *dekhati haũ* I see, *tu, wā dekhat^i hai* thou seest, he sees, independently of gender; but in the plural the feminine is shown in the 2nd and 3rd persons: *dekhetī hau, hai* (cf. *dekhetī rahau, rahai* in the imperfect; *dekhetī hoihau, hoihai* in the future;

p. 269 *dekhetī hotīu, hotī* in the conditional). Agglutinated forms will be

found in the "past conditional": *dekhteũ* if I had seen, *dekhte(h)u* you would have seen.

The Gujarati and the Rajput languages alone in the plains of India lack a present formed on the participle; this grouping is found, however in the old texts: *vāda karitau chai* he discusses, *nāsatā chai* they are fleeing [and dialectically: *hū caḍhto, -tī, tū chũ* I am rising (G. P. Taylor, Students' Gujarātī Grammar, revised by E. R. L. Lewis, Surat, 1944, p. 228)].

Romany is the only important group in which the present participle is detached from the conjugation. But Palestine Romany still possesses a predicative suffix e.g. *-ek*, pl. *-ēn* (an Iranian borrowing: Pahl. *-āk*, Ossetic *-äk, -äg*?) which serves at the same time as participle and verb:

> *jand-ek* he knows (cf. *ama jando-mi* I know)
> *panjī ātek laherdos me⁰* he arriving has not seen
> *zaro kuštot-ek* the boy is small (*kuštota zaro* the small boy)
> *lači kuštot-ek* the girl is small.

Past Participle

Forms:

The past participle, taken directly from the root, assumed in Sanskrit a great variety of forms unconnected with the present stems: *bhūta- (bhavati), patita- (patati), jāta- (jāyate, janayati), jñāta- (janāti), kānta- (kāmayati), pīta- (pibati), bhṛta- (bharati), bhakta- (bhajati), pṛṣṭa- (pṛcchati), iṣṭa- (icchati)* and *yajati), mita- (minotu), naddha- (nahyati), bhinna- (bhidyate, bhinatti)*, etc. It is only the derived verbs which have a consistent form in *-ita-* (*codita-: codayati*), which, moreover, is extending already to a few simple stems (*carita-: carati*, etc.).

The elimination of alternations and the search for forms of general clarity and more particularly the predominance of the present stem and the assimilation of verbal adjectives to the participles, all result in a progressive normalisation of the forms in Middle Indian: *-ita-* spreads in Pali and becomes *-ida-, -ia-* in Prakrit: Pa. *pucchita-* continued by Pkt. *pucchi(d)a-* appears side by side with *puṭṭha- (pṛṣṭa-)* preserved also by the Jaina canon; Pkt. *jāṇia-* replaces Skt. *jñāta-*, etc.

Nevertheless a certain number of 'strong' participles survive in Prakrit, to which are added new forms like *pakka- (pakva-), mukka- (*mukna-, mukta-* being found in Kash. *-mot^u* affixed to other participles), *diṇṇa-* Pa. *dinna-*, for *ditta-> Niya *dita, Torw.

dit (from a lost present **didati?*). They are found in the modern languages and have even, to some extent, increased in number. They are numerous in Sindhi and rather less so in Lahnda and Panjabi. A few occur in Gujarati. A list of them may be found in the relevant volumes of the Linguistic Survey. Kashmiri supplies *gauv, gav,* (inf. *gachun;* Skt. *gata- gacchati*), *āv(āgata-)*, *mŏyŏv (mṛta-), dod*ᵘ cf. Shin. *dádŭ (dagdha-), byūṭh*ᵘ, cf. Shin. *bēṭu (upaviṣṭa-), dyūṭh*ᵘ *(dṛsṭa-), moṭh*ᵘ *(mṛsṭa-), muṭ*ᵘ, cf. Shin. *muṭu (mukta-) ;* Ashkun has *gɛ (gata-), cē(kṛta-), prŏtä* (Kati *pta,* Waig. *prata*) he gave, *(pratta-), niṣina (niṣinna-).* Romany: Nuri *gara,* Eur. *gelo (gata-),* Nuri *sita,* Eur. *suto (supta-) ;* Sgh. *kaṭa (kṛta-* Pa. *kata-), maṭa (mṛta-), duṭu (dṛsṭa-,* Pa. *diṭṭha-), giya (gata-)-, dun* (Pa. *dinna-).* Marathi has enlarged the list by *-lā,* the weak participial suffix: *ge-lā* went *me-lā* died, *jā-lā* (old Mar.) became, *pāt-lā* obtained; Hindi has similarly *gayā (gata-)* from a Sanskrit nasal root and *kiyā (kṛta-), muā (mṛta-)* from *-ṛ-* roots. Some old participles have served as stems for verbs, Mar. *lādh- (labdha-) muk- (Pkt. mukka-),* Hin. *baiṭh- (upaviṣṭa-),* etc. Verbs have been remodelled and groups formed outside the normal series: O. Hin. *dīnha (Pkt. dinna-),* cf. Mar. *dinhalā,* has served as a model for *kīnha, līnha, pānha;* but *dīdha* and *kīdha* must have been formed on *līdha* a combination of *līnha-* and Pkt. *laddha-* attested by Panj. *laddhā,* Sdh. *ladho.*

Even when they are found, these old participles generally have to compete with the regular forms. These are composed of the present stem followed by the representative of Skt. *-ta-, -ita-;* OWR *kahiu (kathita-), thayau* beside *thiu (sthita-) ;* Sdh. *māryo,* Panj. *māryā,* Braj *māryau,* Hin. *mārā ;* Kash. *gupii, gupyov, chu-* (from *acch-* to be); similarly in Shina and Kafiri (Ashk. *mucŏ* fled). The suffix appears under the form of *-r-* in Nuri, and, confused with the suffix described below, *-l-* in European Romany: whence Nuri *ḳera,* Eur. *xalo (khādita-).*

Prakrit makes free use of the suffix *-illa-* (a form of Skt. *-ila-* equivalent to *-vant-,* Pāṇini 5.2. 96-97; *-ala-, -ila-* are perhaps expressive, *ibid.* 98-99) and Jaina Prakrit affects this suffix especially for the enlargement of participles: *āgaelliyā* (having) come (fem.); modern forms of it are found in Marathi, where it is regular (*dekhilā* seen, *gelā* went), more rarely in Gujarati (under the form *-el, -elo*), regularly in Behari (Maithili *dekhal, pīul, bhel, maral* or *muil*), Bengali *(dekkhila, gela)* and Oriya *(dekhilā)*, most probably in Shina (*bulu-* beside *būmu-,* Skt. *bhūta,* Turner, *BSOS,* IV, p. 534), in European Romany (*aċilo* remained, *sutilo* like Beng. *sutil* asleep, *dīnilo* mad, beside *dino* given, struck), in

O. Hindi (Kabir *pucchala*, *bādhala*), in vulgar Hindi (*gayalā*,
p. 271 *beclā* sold).   In Lahnda this suffix is reserved for agent nouns
formed on the infinitive: *mārṇālā*, *mārṇeālā* the striker; cf. Hin.
gail alley, street.

We should notice, by the way, the European Romany
enlargement *-do*, Asiat. *-da*, the origin of which is uncertain.
Juxtaposition with the participle of *da-* to give, to let go, which
has been suggested, suits the sense: Hin. *nikāl denā* to throw out,
beside *nikālnā* to cause to go out; but there are difficulties.   In
any case the form is an old one, for the European loanwords have
a special participle taken from the Greek: *balansimen* weighed.
Shina possesses a serie*c* of pasts in *-du: pašīdu* seen, *carīdu* pastured
(tr.), *bilādu* melted *(biliž-*, Skt. *vilīyate)* ; it is not certain whether
this is an extension of the strong type *badu* frozen, *dadu* burnt
(baddha-, *dagdha-)* or not.

Uses:

On the threshold of the modern languages, the past tense is no
longer used with a personal ending.   The verbal adjective derived
from the Sanskrit adjective in *-(i)ta-* takes its place.   We have
seen p. 257, that as a consequence the phrasing changes according
as the verb is transitive or intransitive.   In the second case the
complement becomes the subject and the logical subject has to be
expressed by an indirect case, the instrumental, when it exists.
The two constructions will be found in an Apabhraṃśa distich
(Sanatkum. 672).

tuhuṃ kahiṃ gaiya caiu mamaṃ ti bhaṇantu
diṭṭhau Viṇhussirijuiṇa nivaiṇa kaha vi bhamantu

"Where hast thou gone *(tvaṃ gatā)* abandoning me?" so saying,
wandering aimlessly, he was seen by the king and Viṣṇuśrī *(dṛṣṭo*
Viṣṇuśrīyutena nṛpatinā).

O. Marathi:

he kīrti... ālī tuja this glory has come to thee
myāṃ abhivandilā śrīguru I adored the guru.

OWR:

hauṃ boliu I spoke (two nominatives masculine)
rājakanyā maiṃ diṭhī I saw *(mayā dṛṣṭā)* the princess

Tulsi Das:

so phalu hama pāvā I obtained this fruit (masc.)
maiṃ guru sana sunī kathā I heard the story (fem.) from the
master.

p. 272   The same constructions are found in the old records of languages
which have subsequently lost them:

O. Maithili:

Śaṅkare Gorī kari dhare ānalī Ś. led G. by the hand

O. Bengali:

śuṇilī kāhiṇī the story has been heard.

When the transitive verb has no express complement, the verb
is in the neuter:

Skt. MBh. *kuruṣva yathā kṛtam upādhyāyena* do, as the master
has done;

Pkt. Mṛcch. *suṭṭhu tue jāṇidam* thou hast guessed well;

O. Mar. *Arjuneṃ mhaṇitaleṃ* Arjuna said (*Arjunenoktam*).

The masculine takes the place of the neuter in languages which
have none; Hin. *Gopāl ne jānā ki...* G. recognised that...

This construction has the advantage of bringing the participle
still closer to the verb in the sense that its agreement with the
noun thereby disappears.   It is extended to intransitive verbs in
Rajasthani:

Marwari *nainkiai ḍavrai gayo*,

Malwi *choṭā laṛkāẽ caḷyo gayo*

by the younger son gone, the younger son went off.

And, in modern times, with the direct construction for
particularised nouns and pronouns:

Panjabi:

unhāṃ nai kuṛī nū māriā

by thee to the girl was beaten, thou hast beaten the girl;

Hindi:

rājā ne is bāt ko batāyā

by the king to this matter was explained, the king explained
this matter (beside *rājā ne ye bāt batāī*),

mard ne šerō ko mār ḍālā

the man killed the tigers;

Marathi (recent and optional; only with nouns denoting animate
beings):

tyāṇē Rāmās mārilẽ (beside *Rām mārilā*) he beat Rām.

p. 273   Finally, both constructions are combined and the participle
is made to agree with a subject expressed as an agent.   This
happens regularly in Gujarati, frequently in Marathi and
occasionally in Rajasthani:

Guj. *tene e rājāe pakaḍyo*

to him by the king (was) taken (masc.),

tene rāṇī-ne nasāḍī mukī

by him to the queen was driven away-left; and already in OWR:
Sundarī nai Bharatai rakhī
Bharata kept Sundari;
Mar. *tyānẽ āplyā mulgās śālẽt pāṭhvilā*
by him to his son to school has been sent (masc.).

This complicated phrasing is not attested elsewhere; it is of interest as showing the vitality of the traditional construction, since concord has been re-introduced into the neuter participle type of sentence.

The chief defect of the system is the failure to indicate the person. The modern languages have had recourse, sometimes simultaneously, to two devices, which had been already employed by Sanskrit to express the logical or grammatical subject.

1. The pronoun is used in languages in which it has enclitic forms. Thus for the verb "to be" Nuri has sg. 1 *aštom*, 2 *aštūr*, which contain the participle *ašto (sthitá-?)* followed by -*m* and -*r*. Here probably we have the direct case (full forms *ama*, *atu*), although the normal use of -*m* and -*r* is that of object.

Sindhi uses *mũṃ mārio (mārī)* I have beaten (him, her). But just as it has *piu-mⁱ* my father, and indeed *cio-mãṃ-sⁱ* it was said by me to him, it affixes the oblique pronoun directly to the participle: *māriu-mⁱ* I struck him, *māria-mⁱ* I struck her.

The same system in Lahnda and Kashmiri (in which there are no enclitic pronouns except with verbs: *di-m* give me):

mẽ wuchyōw or *wuchyōm* I saw him
mẽ wuchyēyĕ or *wuchyēyĕm* I saw her.
gupum gupᵘm I hid him, her, *gupim*, *gupĕm* I hid them
guputh gupüth thou didst hide him, her, etc.

The same system again, at least partly, in Dameli from Chitral:

p. 274 sg. 1 *kuru-ṃ* 2 *kurō-p* (-*p* from Skt. -*tvā*) opposed to the old present 1 *kurim* 2 *kurɛ*.

It has been proposed to recognise a pronoun also (old sg. *haũ* or the pl. *āmi*) in the first personal pronoun of the Bengali group: O. Beng. *parilahō*, mod. *parilām* I fell. Apart from difficulties of form, the hypothesis has against it the absence of enclitic pronouns in normal use.

2. The most general formula is to affix auxiliary verbs to the participle, thus constituting the composite forms noticed below. Of these auxiliaries the verb *as*-, the initial vowel of which was particularly liable to contraction, began at an early stage to be agglutinated with participles. Pali employs *āgato'mhi*

I have arrived, *gatāsi* thou didst go (fem.), *vatth' amha* we lived; and in the passive: *mutt'amhi* I am freed; *dant'amha* we are disciplined; and even with a transitive sense: *patto'si nibbānaṃ* thou hast gained nirvāṇa. But these periphrases are not incorporated into the grammatical system; they seem to rank with some others made from participles or gerundives in the company of *tiṭṭhati, carati, vattati* exist; in any case their presence in Pali is not on the same footing as the decay of the present. But in Prakrit the circumstances are changed. In the Mṛcchakaṭikā the 3rd person has no verb:

papalīnu he escaped

alaṃkārao tassa hatthe ṇikkhitto the ornament was entrusted to him,

but in the 2nd person:

gahido'si thou art taken

nāmaṃ se puchidāsi it is the name which I asked of thee

cf. *tumaṃ mae saha... ujjāṇaṃ gadā āsi* thou hadst gone with me to the garden,

and in the feminine of the 1st person:

ajjae gadamhi yes, I was there (reply to the preceding sentence)

sandesena pesidamhi I was sent (fem.) with news

alaṃkidamhi edehi akkharehiṃ I was adorned with these syllables.

The same construction is found in Marathi *ghātale āhāti* they were cast, but *myā dekhilāsi* I have seen thee, *tū pujilāsi Bharatē* Bharata has honoured thee. The same appears fairly often in the North-west:

Askk. sing. 3rd masc. *gwō*, fem. *geī* he, she went, but *gwōm (gato'smi)* I went, *to ai laum* by thee I (was) beaten.

Kashmiri in intransitives only:

wupus, fem. *wupüs* I have fermented (*wupa* I ferment)

chus, fem. *chĕs* I am (made from a participle derived from Pkt. *acch-* to remain),

ôsus, fem. *ös^{a}s* I was (made from a participle derived from Pkt. *āsī*, impf. of *as-*).

(the 1st pl. remains nominal like the 3rd)

Sindhi masc. *bīṭhus^i* I remained, *halias^i*, fem. *halius^i* I went; Lahnda m. *āhus*, fem. *āhis* I was.

This agglutination with the verb "to be" results in bringing the participle into closer connection with the personal verb.

In Kashmiri the 2nd persons are not distinguished by the endings in ordinary verbs: sg. masc. *wupukh*, fem. *wup^{a}kh* thou hast fermented, directly recall the present *wupakh*, obscure otherwise; pl. masc. *wupiwa*, fem. *wupĕwa* go with the present *wupiw*.

Beside *dekhilāsi, pujilāsi,* old Marathi has in the first person plural: *jalata kāḍhilom jauharīm* we were dragged burning from the house of lacquer, in which there is no longer an intermediate root between the participle and the verbal ending. This is so also in the intransitive verb: *ālom* we (=I) have come

Mod. Marathi:

mī paḍlō, paḍlyē I have fallen (masc. fem.)

tūm paḍlās, paḍlīs, neut. *paḍlēs* thou hast fallen (m. f. n.)

This inflection has been extended to the active verb:

tūm kām (neut.) *kelēs* (not *tvā kām kelē)* thou didst the work

tumhī kām kelēt you did the work

tūm pothī (fem.) *lihilīs* thou didst read the book

tūm pothyā lihilyās thou didst read the books.

Here the active ending is added to the participle which is subject to concordance; there remains only one step to take before the past inflexion can be entirely assimilated to that of the present and Marathi has taken it in a large number of verbs:

O. Mar. *mukuṭu leilāsi* thou hast put on the crown

N. Mar. *mīm pāṇī* (neut.) *pyālō (pyālē* if the subject is feminine) is equivalent to **myā pāṇī pyālē.* I drank the water.

mīm tujhī goṣṭ (fem.) *visarlō* I have forgotten the story.

In the third person there remains only the bare participle, which agrees, however, with the subject and thus becomes an active participle;

tī asē mhaṇālī she said so,

to samskṛt śiklā he learnt Skt.

Nepali has the same kind of construction, except that the subject remains in the instrumental case, influenced, no doubt, by a Tibetan substratum:

besyā-le bhanī (fem.) the courtesan said

tiniharule ānanda māne (m. pl.) they held a festival.

The tendency to give an active value to the participle accompanied by the verb "to be" must be old; it is found in the Niya documents: *kadamhi* I have made, *pesidamhi* I have sent, *prahidesi* thou hast sent, like *asitanti* they were established. This fore-foreshadows O. Singh. *dunmo (*dinnāḥ-smaḥ)* we have given, *kaḻamha* we did, and the modern inflection *kāpīmi (kalpito'smi), kāpuveni (kalpitako'smi)* I have cut, etc., opposed to the nominal 3rd person sg. *kāpuvē,* pl. *kāpuvō.*

In Bihari it is the same: Maith. 1 sg. masc. *dekhalehū,* fem. *dekhali* I saw, 2 sg. *dekhalē,* 2 pl. *dekhalahu;* in the third person there are enlarged nominal forms: sg. *dekhalak,* pl. *dekhalanhi;* fem. *marali.*

In Bengali, which has no gender (p. 150) or plural (even nouns and pronouns have only an agglutinative substitute plural) (p. 155); *dekhila* saw, is in origin a form of the 3rd sing.; otherwise the paradigm agrees with the present: 1 *dekhilām*, 2 *dekhilā(le)*, 3 *dekhilen* (hon. and in origin a plural).

Romany has also become indifferent to the distinction of intransitive and active, but there is concordance in gender: Eur. *běšto* he sat, *khalo* he ate, *phendi* she said, *dine* they gave; Nuri *nanda*, *nandi* he, she has brought, like *bīra*, *bīri* he, she has been afraid.

Thus in different ways and with varying success Indo-aryan has attempted to solve the problem posed by the use of the participle: the opposition of a nominal form for the past to the verbal forms of the present and future resulted in concordancc with the subject; but according as the verb was transitive or intransitive, the subject was or was not the logical subject.   Thence complications ensued, from which each language tried to escape, sometimes falling into worse complications; the history of these attempts, which have probably not yet ended, is to all intents and purposes unknown, but the directing principle is clear.

Participles in the oblique cases

The arrangement of a noun and participle in concord in the locative to express anteriority and, on occasion, the concomitant event hardly survives in modern times; the verbal sense of the participle seems to predominate to the point of putting its subject in the nominative:

O. Rāj. beside

jāiṃ pāpa jasa līdhai nāmi

whose name being invoked *(gṛhīte nāmni)* sins vanish,

which gives the old construction, we have:

p. 277   *janamyaiṃ desyūṃ nāma Vardhamānakumāra*

he (nom.) being born (loc.) I shall give him the name of prince V.
Thence in Hindi:

kyūṃ itnī rāt (fem.) *gaye* (obl. masc.) *tum āye*

why have you come, the night being so advanced ?

tīn baje three having struck (sg.), at three o'clock.

The absolute participle refers without difficulty to the principal subject and becomes a true absolutive with an active construction;

O. Rāj. *madya pīdhai gahilāī karau*

in drinking wine you commit stupidities *(madyam pīte)*

Hin. *pagṛī bāṃdhe āyā* he came, his turban tied *(bāṃdhe* obl. sg. agrees neither with *pagṛī* fem., which it governs, nor with the subject of *āyā* masc. sg.).

This allows Hindi a variation of phraseology:

calte hue begam ne kahā

on going-being by the lady it was said, on her departure the lady said...

maĩ samjhe hue thā ki

I was (part. sg. subject case) in the state of it having been understood, I thought that I had understood that...

Hence instruments of grammar, such as *liye* having taken, for. The same form added to the verb 'to be' supplies Awadhi with some forms of its preterite.

Tulsi Das:

anucita bacana kaheũ I have spoken improper words (masc. subject Paraśurām)

dekhiũ I have seen (fem. subject Śūrpanakhā)

and to-day in Lakhimpuri *dekheũ* I saw, from *dekhe haũ* (having seen (obl.) I am), *dekhis^i* thou hast, he has seen, from *⁺dekhe(ā)sī.*

The absolutive is also found ending in *-āṃ*, cf. p. 267:

O. Rāj.: *āgi samīpi rahyāṃ* the fire being (having remained) near, *rahijyo baithāṃ ghari* remain seated at home; Marw. *liyāṃ* having taken; Guj. *māryāṃ* having struck, Guj. Marw. *bolyāṃ karvũ* to do by talking, to keep on talking.

It may be wondered whether this is an adaptation of *bolyā karvũ*, properly "to do what is talked", Hin. *bolā karnā*, or if on the contrary these latter forms are a substitute for the oblique. The former is the more probable, as the Hindi oblique plural is no longer in *-āṃ* but in *-õṃ*. If so, the participle would be employed as a neuter substantive.

This is an old use:

Skt. *tasyā gataṃ savilāsam* her walk is graceful
   idam esām āsitam this is their seat
   kiṃ pṛṣṭena what from what is asked, why ask?
Pa. *kiṃ te aññattha gatena* why wouldst thou go elsewhere?
Pkt. *icchāmi pavvāviaṃ, muṇḍāviaṃ* I desire initiation *(pravrā-jitaṃ)*, tonsure *(muṇḍāpitaṃ).*

Similarly Bengali: *bini jācilē* without asking, Hin. *tum kyõ aisā kiyā karte ho* why do you go on doing this? *kahe se* from what is said, according to instructions, Shina *ṣidīte žo mutũs* I have escaped from having been beaten, from the blows.

This participle-substantive can be joined in Nepali to a noun by a possessive link, which creates a new participle:

maryā or *mare ko thiyo* he was of dead (neut., not "of death"), dead

bābū kā ghara base ko of the inhabited, he who has lived in his father's house

yek jogī rukh mā jhuṇḍīye ho an ascetic suspended to a tree (the active participle could be employed in the same way, *jhuṇḍe ko* hanging).

In Bengali a participle without the *-l-* suffix is used in this way: *māra hoi* a killing takes place, *āmāke dekhā hoi* to me is seen, I am seen, *ki kārā hoi* what is done? (a vaguely polite formule for what are you doing?), *khāyā gele* the (food) eaten having gone, when eating is over. This participle is governed by *karān* to cause to do, in expressions such as *rākhā, ānā karān* make to keep, bring; the construction is the same as in *gān karān* to make song, to sing. It may be wondered what is the exact link with the use of the same form as absolutive: *pāiyā dei* if he receives (once received), he gives; *āmi āsiyā dekhilām* having come I saw; it can be admitted that in the second example there is a subjective case (and equally in *mārā jāy* or *paṛe* he is beaten, *dekhā paṛi* I fall seen, I am seen and that in the former the participle has taken on the active sense. The fact is that this form is invariable suggests an extension of the substantive use, the variations of which are elusive, or here again the substitution of an apparently denasalised form (*ā* is spontaneously nasalised p. 45) for an old oblique plural.

In this instance the nominal value of the participle requires that its logical subject should be presented in a dependent relation, that is, joined with the possessive adjectival particle or, if it is a pronoun, as a possessive pronominal adjective:

Guj. *Sikandar-nā muā pachi*, Hin. *Sikandar ke mue ke pīche* after the death of Alexander,

Guj. *mārā pāchā āvtā sudhī raho* stay until I come back (pres. part.)

Beng. *āmār na dile* if I do not give *(asmākam na datte)*

Mar. *maj ālyā viṇā* without my having come.

But it may happen that under the influence of the general construction of the verb, the logical subject is in the nominative. In Nepali we have (examples communicated by Professor Turner):

mai-le gardā duniyā sabai bhāg gayā

as I was doing it (pres. part.), the whole world fled; like *mai-le gar-chu* I am doing, but with a neuter verb just as one says *ma āũ chu* I come, one will say:

mī āū dai mā as I was coming.

In Bengali, beside *āmār na dile* if I do not give, one can well say *āmi dile* if I give; Mod. Beng. *tumi janamilā hote* since thy birth. This construction has been largely extended in Mod. Marathi, doubtless under the influence of a Dravidian substratum: *mī tethe gelyā-ne* if I go there, *pāvsāḷā sarlyā-var* once the monsoon is over *(varṣāḥ sṛtasya upari)*.

It is also a Dravidian substratum, which explains the indeclinable adjectives accompanied by their logical subject in the nominative in vulgar Singhalese: *mama kī-dē (aham kathita-kāryam)* the thing which I said; Oriya possesses a similar construction with an infinitive formed on the old future participle: *mu debā dhāna (aham dātavya-dhānyam)* the grain which I gave.

It will be noticed that all these uses move the participle away from its adjectival origin, not as in Sanskrit, which accepted as adjectives isolated from the verb words like *prītá-* friend, *śīta-* cold, *dṛḍhá-* firm. The adjectival use is not unknown in the modern languages: moreover, the adjective is distinguished from the verb by its position: Or. *paḍilā gach* the fallen tree, *gach paḍilā* the tree has fallen. However, the adjectival value is preferably rendered by derivatives or by periphrases.

Derivatives: Guj. *karelū kām* the work done (*kām karyū* the work was done); Mar. *pāṭhvilelem ājñāpatra* the order sent (and also *hē ājñāpatra lihilelē asūn* this order having been written; *naukā bāndhaleli āhe* the boat has been tied up, Marw. *māriyoṛo* beaten (*māriyo* was beaten), Kum. *hiṭiyo* departed (*hiṭo* he departed, cp. Shina *zamītu* beaten, the fact of having been beaten, which is perhaps the juxtaposition of an absolutive and **sthita-* and, in any case, is sharply opposed to *zamē* having beaten, and *zamegas* I have beaten.

Periphrases: These are made with the participle of *bhū-*. Sanskrit is already using *bhūta-* in apposition and as the second member of compounds, and with any nouns: *aglāna-bhūta-* indefatigable; Pali recognises hardly more than the type *agārika-bhūta-*, *gihibhūta-* living as a townsman. In the same way Singhalese has *suduvu aśvayek* white horse *(śuddha-bhūta-)*. But in certain modern languages the first member is declined: Hindi designates "a man standing" by *khaṛā huā ādmī;* applying the formula to the participle, it will say *inām pāyā huā larkā* the boy who has gained a prize, *nīce nām dī huī pustakē* the books (fem.) named below; similarly Marwari *māriyo huvo* is equivalent to *māriyoṛo* beaten; Maith. *sūtal bhel* asleep, *dekhal bhel* perceived.

In Hindi *pūrā* full, complete, is the participle of *pūrnā* to fill, but it so happens that this verb is little used and preference is given to *pūrā karnā* to make full; here the participle employed as an adjective has driven out the verb.

Future participles

Of the various suffixes forming the adjective of obligation that in -*ya*, which was first the most widely spread, has also been the soonest to disappear, because from the moment that the consonant groups began to be assimilated, the formation lost its clarity. Even the Skt. type *pūjanīya*-, Pa. *pūjaneyya*- (through a combination with the AV type *śapatheyyá*- deserving of curses), Pkt. *pūaṇīa*-, *pūyaṇijja*- worthy of adoration *(pūjanam)* has not survived, despite its ties with the substantive form destined to supply infinitives. The form which carries the day is that in -*(i)tavya*-, which had the advantage of being opposed to the adjective in -*ta*-, although with another vowel stage of the radical. Pali keeps *pattabba*- to attain, which goes with *patta-* *(prāpta-)* and is distinguished from *pāpuṇāti* etc.; also *dātabba-* *(dātavya-)* to give, *netabba*- to lead *(netavya-)*, which go with the infinitives *dātave*, *netave* and also with the present *neti* *(nayati)*.

It is from the presents *pacati*, *pucchati*, *pūjeti*, *gaheti* that are made *pacitabba*- to be cooked, *pucchitabba*- to be questioned, *pūjetabba*- to be adored, *gahetabba*- to be taken (cf. Pkt. *genhidavva*- from *geṇhai*), opposed to Skt. *paktavya*-, *praṣṭavya*-, *pūjya*-, Ved. *gṛhya*-, MBh. *gṛhītavya*-.

Of the old forms there remain only isolated nouns like Hin. *kāj* affair (*kārya*-, Pkt. *kajja*-; but Sind. *katab^u* business, Skt. *kartavya*-), Hin. *anāj* grain, food (Skt. *annādya*-), Sind. *pej^a* rice-water, Hin. *pej* boiled milk (Skt. *peya*- to be drunk, drink), Pkt. *pejja*-, Pa. *peyya*-), cf. Skt. *pānīyam*, hin. *pānī* water.

This remained the almost universal formation in Indo-aryan; we have seen (p. 261) the participles in -*n*- and notably the Sind. type *māriṇo*, Lah. *mārnā* which should be beaten.

But in surviving it has often changed its uses. The old use survives only in Gujarati and Marathi :
    Apa. *uttaru devvau* a reply must be given
              ujjavaṇu karivvau the sacrifice should be made
    O. Rāj. *hiṃsā na karāvī* (fem.) harm should not be done
    Guj. *tene ā copḍī vāṃcvī* he should, he wants to read this book

Mar. *āmhī kāy karāvē* what have we to do?

ātāṃ pāus paḍāvā (masc.) now the rain must fall.

In Sindhi the type *māribo* has been attracted to the present; it enters into juxtapositions as *māribo āmhiyāṃ* I (masc.) am being beaten *(māryamāno'smi)*, *māribo hosⁱ* I was being beaten, etc. The future sense is found again when the participle has taken on the value of a verb in the third person: *māribo* he will be beaten, *māribī* she will be beaten, *māribā* they will be (masc.) beaten, *māribiūṃ* (fem.), but also with the pronoun in the 2nd plural "you (fem.) will be beaten". Around this form a verbal paradigm has been built, as upon other participles: *māribusⁱ* I shall be beaten (masc.), *māribiasⁱ* fem.), etc.

Similarly in Marathi the participle of obligation, once more declined, appends -*s* to the 2nd sg., -*l* to the 3rd and 2nd pl.: *tū granth lihāvās, pothī vācavīs āṇi dusrē kām karāvēs* thou shouldst write a work, read a book and perform some other task. Further, it is apparently the base of the potential conjugation: O. Mar. *he sarilā na tarave jīvāṃ* this river is impassable to living beings, *āmhīṃ kaisem karavela* (-*l*- is the future suffix; cf. p. 290) by us what will there be to be done, what can we do?

In the eastern languages the same principle has given a verbal base with an active sense, like the past participle in -*l*-; but the future so formed is complete in Bengali only: sg. 1 *dekhiba* 2 *dekhibi* I shall see, thou wilt see, etc. and in Oriya: sg. 1 *dekhibi*, 2 *dekhibu* etc. In old Awadhi the 'sigmatic' future with the complete -*h*- suffix co-exists with the participle in -*ab*, fem. -*abi*, used in all persons; nowadays at Faizabad we find 1 *dekhᵃbūṃ* 2 *dekhᵃbe* and *dekhᵃbes* but 3 *dekhihai* and similarly in the plural; at Lakhimpur the sigmatic future is replaced only in the p. 282 1st plural *(dekhibā)* ; in Chattisgarhi we have *dekhihaū* I shall see, but *dekhab* we shall see; and contrariwise 2 *dekhᵃbe* thou wilt see and *dekhihau* you will see; in the third person there is the old future only; sg. *dekhihai*, pl. *dekhihaī*. The -*b*- form then is wanting and in Bihari it is the same; this is remarkable considering that it concerns a form of nominal origin. It is surely the competition of the same form used as a substantive that has something to do with this reluctance to adopt it for the verb.

In fact from Sanskrit onwards the neuter participle could be given the value of an abstract substantive: *kāryam* affair; *rakṣitavyam* steps to be taken for watching; Apa. *bhaṇiyavva-jāṇaya* skilled in speaking (Latin *loquendi perita*).

It is almost equivalent to an infinitive: *mayā gantavyam* there will be, there is for me the act of going, Pañc. *nāyaṃ vaktavyasya*

kālaḥ it is not the moment for speaking. This value has been developed in the modern languages in the oblique cases, as is proper for an infinitive:

Apa. (Bhav.) *avasaru na huu pucchivai* the opportunity for asking was lacking; *bhaṇḍāriu pālevvai niuttu* the treasurer appointed to watch.

O. Rāj. *khāivā-nī vāṃchā* the desire to eat; *jīpavā vāṃchai* he desires to conquer; *paisivā na pāmmai* he does not succeed in entering; *cintavivā lāgau* he began to reflect; *jimavā baiṭhau* he sat down to eat.

Marw. *carābā melyo* he was sent to graze (cattle).

In Gujarati *karvũ* to do, is the normal infinitive; from it is taken a new adjective of obligation or of possibility with the possessive suffix: *karvā-no* (masc. sg.) to be done. Similarly Mar. *karāvayācā* to be done (adj.), *karāvayās* in order to do, *karūn* (old *karavauni* by the act of doing, having done). Similarly Rāj. *calbo, calwo,* Braj *calibaũ,* E. Hin. *calab,* finally Beng. Or. *calibā* to go.

The form then exists in the whole of central and eastern India, except in Hindi and Panjabi. For the "relative participle" of Oriya, v. p. 279.

Thus the Sanskrit participles and verbal adjectives have formed a group and have evolved in a palpably parallel fashion. It is remarkable that this evolution did not end in what the group became in Sanskrit—a system of participles; there are no longer any participles, that is to say, adjectives based on verbal stems; the participial force is recognised only in the connection with auxiliary verbs, which frequently ended in fusion, that is, in total p. 283 loss of form. In other respects the old participles, losing the function of adjectives become equivalent to verbs or approximate to infinitives or absolutives.

Infinitive

This will not detain us for long. In fact, the evolution of Sanskrit seemed to tend to the formation of a true infinitive, that is to say a form isolated from declension (in spite of its very clear origins) and capable both of depending on a noun or verb and of governing a noun. But it is sufficient to compare the Sanskrit infinitive with those of the languages in which the category really exists to perceive that the part it plays is much reduced: it has little more than a final sense, or is used with words expressing ideas of willing, trying, going, being able. It is with the same force that it is encountered in middle Indian, for example,

in Asokan.   One does not meet with it in the nominative.   The
infinitive clause, some outlines of which are perceptible, does not
materialise.   Finally, there is only one form isolated from the
tense-stems and valid both for active and passive.

The Sanskrit infinitive has disappeared from the modern
languages, except perhaps from Marathi: *to tẽ karũṃ icchito* he
desires to do it.   It is as well to remember that even in this case
the construction could be that of an absolutive: indeed, Middle
Indian had an absolutive in *-iuṃ*, v. p. 285.

Leaving aside the little frontier group (Prasun and Gawarbati
-k, Khowar and Pashai *-ik*, Shina *-oiki* borrowed from Iranian
(Wakhi *-ak*, Ormuri *-ēk*)), there are substantival forms throughout.

One of the most frequent is that derived from the Skt. noun
in *-anam:* on the one hand the simple form: Singh. *-nu*, Kash. *-un*,
Lahn. *-uṇ* (obl. *-aṇ*), Sind. *-aṇᵘ*, Bundeli *-an*, to which must be
added *inter alia* the Bengali tatsamas; on the other hand the
enlargement: Mar. *-ṇẽ*, Braj *-nau*, Panj. *-ṇā* (*-nā* after cerebrals),
Rāj. *-ṇo*, *-ṇū*, Nep. *-nu*, obl. *-na*).   Middle Indian was already
familiar with this use: *eso Ayalo mama ghar' āgamaṇe nivāreyavvo*
(equivalent to *mama gharaṃ āgantuṃ*): this Ayala should be
stopped from coming to my house; cf. *māraṇe chiddaṃ* the
opportunity of killing him (Jacobi, *Erzählungen*, Gramm. 116,
101).

Elsewhwere there are the participles of obligation (Guj. *vū*,
Rāj. *-bo*, Braj. *-ibau*, Beng. *-iba*, Or. *-ibā ;* and Mar. *-vayā-* in the
oblique only), and the present and past participles described
above.

The proper meaning of these nouns is still recognisable and they
are used in all cases with the ordinary value of the inflexion.   On
the other hand, they play but a small part in the periphrases
with a more or less grammatical value, about which we shall hear
later.   One may then say that Indo-aryan has not succeeded in
creating an infinitive.

Moreover, a part of the functions of the infinitive was supplied
by the absolutive or its successors.

Absolutive

In Iranian certain adverbial accusatives of root-nouns or of
nouns in *-ti*, generally compounds, expressing an attendant fact:
Avestan: *paiti.saṅhǝm* while contradicting, *aiwi.naptīm* while
wetting; the accusatives of comparable form in the Vedas have an
infinitive meaning, v. p. 251.

Contrariwise, Sanskrit has actually created a category of absolutive or gerund, expressing as a rule an anterior or simultaneous occurrence. It is expressed by fixed instrumental (and locative?) forms, of which the subject (at least the notional subject) should be the same as that of the principal sentence: *pibā niṣádya* drink after being seated, *striyam dṛṣḷváya kitaváṃ tatāpa* by looking at a woman, it troubles the gambler.

The stems are related to the stems serving as infinitives in -*tu*, -*i*-, -*ti*-; the Vedic endings -*tvī*, *tvắ*, -*tvắya* are affixed to simple verbs, -*yā*, -*ya* and -*tyā*, -*tya* to derivatives and compounds.

This wealth of equivalent forms is diminished in classical Sanskrit, a fact which agrees with the habits of this state of the language; but the vitality of the absolutive is manifested by the extension and renewal of forms: in the first series Vedic has already accumulated -*tvắya* and according to Pāṇini -*tvīnam* (in *iṣṭvīnam*); Pali uses besides -*tvā* (whence Pkt. Saur. -*dua*), -*tvāna* (Jaina -*ttāṇaṃ*); Asokan preserves Gir. -*tpā*, Shah. -*ti* (presumably to be read -*tti*, also offers -*tu* (cf. again Niya *vimñavetu* as accounted for, F. W. Thomas, *Acta Orientalia*, XII, p. 49) and once -*tūnaṃ*, the first very rare, the second rare in Pali, but continued in Mahārāṣṭrī -*ūṇa*.

So far as the stems in -*i*- are concerned, Pali adds the poetic enlargement -*yāna* (e.g. *uttariyāna* glossed by *uttaritvā*) to the normal -*ya* (preserved in Pkt. -*ia*); to the same series the Jaina type *āyāe (ādāya)* is attached and is analogous with the oblique feminine of nouns (cf. Pa. *atthāya* corresponding at once to *āsthāya* and *arthāya*, whence, no doubt, the datives of purpose in Asokan: *a(ṭ)ṭhāe*, etc., cf. p. 132). We must also cite -*ium* employed not as an infinitive, but as an absolutive; Asokan is already introducing *tathā karuṃ* acting thus, a form indeed difficult to explain (is the absolutive ending in -*am* affixed here to the stem *karo*?).

The characteristic form of Apabhraṃśa is -*i: cali* having gone, *kari* having done; there are also -*eppi* and -*eppinu*, which recall Skt. -*tvī*, -*tvīnam* and -*vi*, -*viṇu* (remnant of **tuvīnam?*). So far as -*i* is concerned, several explanations can be imagined to account for it; none is convincing. A further complication is caused by the long vowel of the Rājasthānī bardic texts, e.g. *karī*, which has led Tessitori to look for the locative of the past participle *kariyau* in it. The same form -*i*, -*ī* persists in Gujarati, Pahari (with various enlargements) in old Hindi, Maithili and several languages of the Hindukush (Prasun, Kalasha, Gawarbati, Khowar); Shina too has -*e* or -*i* according to the conjugation. In modern Hindi the ending has been dropped and the absolutive

has the form of the verbal root; perhaps because of that and also because it coincides with the imperative singular, it hardly appears except in combinations: *kah-kar*, having said, *kar-ke* old *kari-kai* having done (the second part is here actually the locative or oblique of the past participle).

Of the other modern languages Kafir alone has archaic forms: Kati, Ashkun, Waigeli *-ti* really seems to represent Skt. *-tvī*, exactly confirmed by the N. W. Asokan inscriptions. Is Kash. *-th*, formerly *-tⁱ* the same or is it *-tvāya* (cf. the oblique pronoun *-th* in the verbs from Skt. *tvāya*) or is it something else still? Is Waig. suffixal *-bī* from *bhūya?* Singh. *-koṭa*, O. Singh. *-koṭu* by, seems indeed to descend from Asokan Dhauli *ka(ṭ)ṭu;* but the normal forms appear to rest on *-ya* or *-āya*.

Elsewhere these forms are completely wanting; we have seen that their rôle was played by participial forms. What is of importance is the constancy of the function; the absolutive is wanting only on the Afghan border (Pashai, Tirahi and the Kohistani group) and in Romany.

Moreover, the function is considerably more varied than the general definition given above would indicate: in fact, together with the locative absolute, which itself also expresses, as a rule, only concomitant events, the absolutive supplies one of the principal methods in Sanskrit of connecting sentences; like the participle or the Latin gerundive it can convey the equivalent of p. 286 our principal verb. ABr. *apakramya prativāvadato 'tiṣṭhan* they departed refusing obstinately (to translate "they departed then stopped" would falsify the meaning).

Such a flexible relationship permits the creation of numerous periphrases in which the principal verb has only an auxiliary status: ABr. *indram ... ārabhya yānti* they go holding, they keep back Indra; The absolutive here plays the same part as the present participle in the Ṛgveda *vibhájann eti* he goes distributing and, in fact, it will make up for the deficiency of the present participle used as such. In the ŚBr. *tám hiṃsitvèva mene* he was thinking to have hurt him, it is equivalent to the perfect participle, which is also to disappear, cf. RV. *sómam manyate papiván* he thinks he drank the Soma. The verbs "to be, to remain" are also used: the latter is no longer used except to carry the verbal endings: Daśa. *sarvapaurān atītya vartate* he surpasses the whole world, similarly with the participle: Ram. *dharmam āśritya tiṣṭhatā* adhering to the law, which furnishes a shade of meaning, not to be expressed either by *aśrayamāṇa-* which is rather an inchoative, or by *āśrita-* still bearing a past sense.

These periphrases are still more frequent in the modern languages and characterise their phraseology.

The verb "to be able" is used with the absolutive in the same way, at first perhaps with a passive sense in conformity with the etymology (but Skt. *śakyate* is constructed with the infinitive): Apa. (Bhav.) *kenavi gaṇivi na sakkiyaï* cannot be counted by anyone, O. Rāj. *bolī na sakai* cannot be said, Hin. *bol saktā nāhīṃ* cannot say. Still the same use with the verbs "to give" and "to take": Hin. *yĕ xat paṛh lo*, *do* reading this letter take, give; take note of, read me this letter; Sind. *cai ḍiaṇu*, Hin. *kah denā* to say, Guj. *teṇe vāṃk kahī dīdhā* he disclosed their faults, *chokrāmo nāhī lo* children, bathe quickly.

A certain number of absolutives, emptied of part of their meaning through usage, played the part of postpositions in Middle Indian, see p. 160. There are few representatives in the modern languages. To the examples given in p. 181 we may add (according to Helmer Smith) Singh. *siṭa* from *(sthitvā)*, *mut*, *misa* except *(muktvā,* Pa. *muñciya)*, *karaṇakoṭa (karaṇaṃ kṛtvā)* by means of. But the oblique participles, which have everywhere assumd their function comprise a fairly large list, e.g. Nep. Bih. O. Beng. *lāgi* because of, Nep. *lāi* for, Sind. *lāge* in view of, Hin. *liye* for, Mar. *hoūn* from and the whole series of which the ancestor is the Skt. *kṛte*, *kṛtena* for, Braj *kai*, Panj. Hin. Bih. *ke*, cf. Braj *kari*, Panj. Hin. *kar*, Rāj. *ār*.

In spite of the impoverishment of the system, the Middle Indian verb still distinguished several tenses and moods. In the modern languages there remains no trace of the old moods, unless one counts the imperative as such, which has in general no other proper form than the 2nd sg., identical with the root of the verb Moreover the imperative can be replaced either by the infinitive (without any special significance) or by a present passive (a polite or deferential touch).

In the indicative itself the preterites are defunct, the sigmatic future only survives in some languages; the present alone is constant and able to render meanings, which have no longer proper expression. So also in Sanskrit it is already replacing the subjunctive in subordinate clauses. In narration it is spontaneously mingled with the other tenses of the indicative: in Middle Indian the Kharavela inscription, which is essentially historic, is altogether in the present, except the introduction in which the past relating to the infancy of the king is rendered by participles in -ta- and the conclusion, which serves as a signature, is composed of purely substantival sentences: it is, no doubt, less a matter of shades of meaning than a conflict of two styles. The present with a future sense is more rarely met with.

In the modern literatures and even in the rustic dialects, which are archaic, the old present generally keeps its intrinsic meaning, at the same time as that of the gnomic present, which is a constant. The historic use is frequent in narration; Marathi goes further: the old present regularly expresses an action repeated in the past. On the other hand, Marathi uses it also to express possibility, eventuality; and that is a meaning current in Hindi, Panjabi, Kashmiri (*gupi* he will hide, he may hide, (if) he hides); this leads to the future sense, normal in Shina (*baram* I shall take away) and in other Dardic languages (Dameli, Torwali with a single form, that of the 3rd singular), in Maithili (with a conditional sense also). Nuri alone makes a subjunctive of it in a dependent clause

and affixes a particle to it to restore the indicative sense: *nanam* let me bring, *nanami* I bring; similarly in Europe *kamāv* is more of a subjunctive, *kamāva* is a real future: I shall love.

Conversely the modal shade of meaning can be obtained by a particle affixed to the present, as for example Sgh. *vā* and at the other end of the territory Kati, Ashk. Waig. *bā* (Gawarb. *-a*?). It is a case, no doubt, at least in the latter group, of a form of Skt. *bhū-*, perhaps the optative; moreover, *ba* furnishes a verb "to be able" in Kafir. The same word is affixed to the imperative of European Romany (Roumanian, Hungarian and Welsh). It must be distinguished from the prefix *-ba* marking the future in Tirahi, which is an Afghan loan.

Lahnda forms the past conditional according to the principles of the Kafir 'optative', *mārāṃ-hā* I should have, if I had beaten, *māren-hā* they should have, if they had beaten. Similarly in Kashmiri, except that the endings follow the 'particle', *gupa-hakh* thou wouldst have hidden, *gupi-hiw* you would have hidden.

But generally, the past conditional, as it reflects a past contingency, is linked with the imperfect: Hin. *kartā* making, thou wast, he was making: if I, he had, thou hadst made.

We have seen, on the other hand that the present passive by virtue of its gnomic meaning has often taken on the force of an obligation and serves also to make polite requests: Mar. *pāhije*, Hin. *cāhije*, Latin *uidetur*, it is necessary, Awadhi *dēkhaj* see ye, Hind. *dije, dijiye* pray give; O. Kash. *pezē* he ought to fall, *khezē* he ought to eat, mod. Kash. *gupizi* thou shouldst, he should hide, Hin. *dijiyo*, etc.; the Bengali precative in *-iyo* (borrowed from Hindi?) is perhaps an adaptation of these forms to the imperative type of Śaur. Pkt. *dijjadu*.

The shades of meaning of the moods lead back, therefore, in various ways to those of the tenses.

Of the principal tenses the present had a possible means of expression in the old present; the preterite is normally represented by the participle which emerged from the Skt. *-ta-, -ita-*. The future alone, except where the sigmatic form had persisted, was without adequate means of expression. We have seen the cases in which it was supplied by the participle of obligation, Skt. *-(i)tavya-*.

p. 289   There exist other ways of proceeding, the elements of which are modern.

First of all, nominal periphrases: Mar. *bolṇār āhe* he is a speaker,

he is going to speak, Guj. *cālvāno chū* I am going to go away, Sgh. *kapanne-mi* I shall cut (used previously as a durative present and narrative past); Nepali makes a compound with the infinitive *garne cha* he is of making, he will make; the Pashai present appears to rest on a similar combination *hanīk-am* I strike, should strike.

Another procedure is by way of particles added to the present; we have seen this in the case of European Romany (apart from the Balkan use of *kam-* to wish, after Greek *tha*), in Gawarbati *-a* and *-ō* seem to be added to a conjugated root-form (the normal present has the suffix *-m-*), *θlemo* I shall beat, *θlesā* thou shouldst beat? Cf. *boem*, *boes* (themselves juxtapositions of a participle and a verbal inflexion). I have, thou hast been; in Shina *dǎṣ* gives the possible contingency the value of a near future.

The particle used is often of a substantival or more precisely of a participial origin. A particularly clear case is that of Hindi:

sg.	1 masc.	*calū(n)gā*	fem.	*calū(n)gī* I shall go
	2-3	*calegā*		*calegī*
pl.	1-3	*cale(n)ge*		*cale(n)gī*
pl.	2	*caloge*		*calogī*

This type is found intact in all dialects of Hindi and in the neighbouring regions: Maith. (partially), Panjabi, Mewati. But in the South of Rājasthān, Marwari and Malvi *gā*, Bhili *go* are fixed in the form of the masculine singular. In the northern dialects of the Panjab and the neighbouring Himalayan languages the suffix is *-g* or *-ghā* and further the endings of the principal verb no longer appear. Ex. Dogra (Panjabi):

1 Sg. *māran*	Pl. *māran mārge*, f., *mārgiāṃ*
2 m. *mārga*, f. *mārgī*	*mārgio*, *mārge*, f. *mārgiā*
3 *mārag*	*mārange*, *gan*, *mārgan*, *-gā*

Cf. in the Kangra dialect in the masculine:

sg. 1 *mārāng(h)ā*, 1.2.3. *mārg(h)ā*; pl. 1.2.3. *mārg(h)e*.

Certain forms support the general presumption that the first member is a remnant of conjugated forms. It is possible also that there is an intrusion of the absolutive, as in the Shina pasts *zamegu*, *zamegi* he, she has beaten.

p. 290 The second element is obviously nominal and independent; Hindi separates them on occasion; *ho hī gā* he will be truly. It is easy to recognise the unenlarged form of the past participle of the verb "to go", Skt. *gata-*, Pkt. *gao*, Braj *gau*, Hin. *gā* (enlarged form Pkt. *ga(y)ao*, Braj. *gayau*, Hin. *gayā*). This participle, which

forms periphrases with a past meaning in Shina (*harīgu*, *harīgi* he, she has carried away) and as a natural consequence, with past conditional meaning in Ashkun (*dialē-gōm* I would go, cf. *dialēm* I will go), here connotes accomplishment; the meaning is then "I have gone in order to beat etc.".   Cf. the developed expression of Welsh Romany: *me java le xả* I am going that I may eat, I am going to eat, and with the past participle: Nuri *gara jāri* gone that he may go, he means to go.

Elsewhere the second element is constituted by -*l* alone or enlarged.   Marathi from the oldest texts onwards has -*l* alone: *padaila*, *padela* he will fall, *karīla* he will do.   In Bhili and Marwari the suffix is -*lo*, -*lā* indeclinable.   But Jaipuri declines -*lo* and similarly the Himalayan group: Kumaon -*lo*, Nepali -*lā*:

    1 *garŭ-lā*   I will do, I want to do
    2 *gar(e)lās*
    3 *gar(e)lā*

(combinations with old forms, e.g. in the Lahnda of Punch in the Kulu).   For the indefinite future *garne cha*, v. p. 289.

In the neighbouring dialects the *mārlā* type competes wit *mārūmlā* just as we have seen *mārgā* competing with *mārāṃgā* in the same regions.

The origin of the invariable is here the less clear as certain languages have attached verbal endings to the second element: thus in Kafir, Ashkun *balēi*, he will become, Kati *belom* I shall become; Ashk. *kalim*, Kati *kulum* I shall do, cf. Ashk. *sem*, Kati *səm* I am.

Middle Bengali adds -*li* to the stem (already inflected?) of the 2nd sg. of the sigmatic future: *karihali*, *dihali* thou wouldst be willing to do, give.

We may also take into account the Bhojpuri present-future in spite of the distance and the difference in the systems: masc. *dekhale*, fem. *dekhalisi* thou seest, wilt see; *dekhe-le*, *dekhe-lan* they see, will see, *dekha-lin* they (fem.) see, will see (cf. *dekhan* if they see, *dekhin* if they (fem.) see).   Here it really seems that we are dealing with past participles or gerundives; Konkani uses the present participle: *nidto-lō* I shall sleep.

The history of these forms is therefore complicated, but the parallelism with the form in *g*- compels the recognition of the participle in the second element, presumably that of Skt. *lā*- to
p. 291 take, which in fact has from middle Indian onwards generally been supplanted by *le*- (formed after *de*- to give); the convergence with the use of the Russian Romany *la*- to take, should be noted.

Apart from the future, the cases in which the auxiliary is a participle are somewhat rare. We may cite the definite present in Sindhi: *aūṃ halāṃ tho* (fem. *thī*) or *tho (thī) halāṃ* I am going, with the participle of the Skt. root *sthā-*; *pio cāre* he is grazing (trans.) where the participle is from Skt. *patita-*.

The same construction, but with a verbal auxiliary (cf. the method of expressing the Romany future mentioned above) serves to form the existing present of the Gujarati-Rajasthani-Braj group: Guj. *cālūṃ chūṃ* I am that I go, I am for going, I am going, Braj *māraū haũ* I shall beat.

The verbal auxiliary accompanying a participle in the direct or oblique cases expressing the main idea, constitutes the most ordinary method of expressing the shades of meaning of the tenses and the moods which the forms hitherto examined are incapable of rendering: duration, relative time, etc. Here there appears no precise boundary between grammar and phraseology, so much that the more cultured or more thoroughly described are the languages, the richer the conjugation appears to be. Enumeration is no more necessary here than was a table of all the postpositions in use in the morphological description of the noun. Let us be content with giving a number of the clearest examples of combinations with the verb "to be" (all declinable forms are put in the masculine):

Marathi:

Verb "to be" conjugated:

cālat āhẽ I walk
cāltõ ahẽ —
cāllõ āhẽ I walked
cālṇār āhẽ I am going to walk
cālat asẽ I was wont to walk
cālat astõ I am wont to walk, I should be walking
cālat aslõ (if) I walked, I should walk
cāllõ astõ (if) I had, should have been walking
cāllõ aslõ — — —
cālṇār astõ I was going to walk
cālṇār aslõ (if) I was going to walk
cālat asen I shall be walking
cāllõ asen I shall have walked
cālṇār asen I shall be about to walk
cālṇār hotõ I was going to walk
cālat hotõ I was walking
cāllõ hotõ I had walked

cāltā jhālõ I set myself to walk
cāltā hoĩn I shall etc.

Verb "to be" in participial form:

cālat asāvā I ought to walk
cāllõ asāvā I ought to have walked
cālṇār asāvā I ought to set myself to walk
myāṃ cālat asāvẽ I should be walking
myāṃ cālāvẽ hotẽ I should have walked

Sindhi (not taking into account oblique pronouns, normal or suffixed).

Verb "to be", conjugated:

halado āṃhiyāṃ I am going
halyo āṃhiyāṃ I have betaken myself
halando huāṃ I may be going
halando ho-s^i I was going
halando hūndu-s^i I had betaken myself

Verb "to be", participle:

halāṃ tho, tho halāṃ I am going
cf. *halius^i the* (oblique participle) I was wont to go, which expresses more exactly *halius^i* I was going.

Marwari:

mārto huūṃ I may beat (a double contingent present for the definite present *mārūṃ hūṃ* I beat).
mārto huūṃlā I shall be beating
mārto ho I was beating (and also with the locative of the past participle: *mārai ho*)
mārto hoto I was beating

Hindi:

Verb "to be" conjugated:

girtā(-tī) hūṃ I am falling
girā(-ī) hūṃ I fell
girtā hoūṃ I should be falling
girā hoūṃ I should have fallen
girtā hūngā I should be going to fall
girā hūngā I shall have fallen

Verb "to be", participle:

girtāhotā (if) I fell
girā hotā I should have fallen

girtā thā I was falling
girā thā I had fallen

Maithili:

dekhai chī, *dekhait (dekhait^i) chī* I see
dekhal or *dekhalahū achi* (or *ahi*) ⎱ I have seen
dekhalẽ chi ⎰
dekhai or *dekhait(-t^i) calah^ū* (participle conjugated with
ach-) I was seeing.
dekhalẽ calah^ū I had seen.

Bengali:

mod. *karitechi* I am doing, *karite chilām* I was doing
kariyā chi I did, *kariyā chilām* I had done.

Nuri:

nan-o-cam (absolutive plus *ho plus *acchāmi I want to bring,
I bring.

The verb "to be" serves also to form passives:

Sindhi: *māribo āhiyāṃ* I am habitually beaten, cf. *māribu-s^i*
I shall be beaten; conversely we find the participle of the verb
"to be" affixed to the old passive: *mārijāṃ tho* I am being beaten.

Mārwāri: *māriyo hai*, *ho* he is, was beaten; and consequently
mhaĩ māriyo hai, *ho* I have, had beaten him, *mhaĩ māriyo huvai*
I may have beaten him; here the only construction is passive, a
suppletive use of the active.

Bengali: *khavā hay* is being eaten, *mārā hobe* will be struck,
dharā hoiā che has been taken; *e boi āmār paṛā āche* this book is
my 'perused', has been perused by me.

p. 294 Pashai (isolated in the group, as it seems) *hanim, liyim bīkīm*
I am, thou art beaten, *hanin bigākum* we are beaten.

Romany also forms a passive with -*ov*- (Pkt. *ho*-): *čindovava*
I am cut; it is an extension of the type *bariovava* I become great:
Nuri has nothing like it.

In order to appreciate exactly the part played by all these
expressions (no attempt has been made to distinguish different
periods or frequency of use), we must remind ourselves not only
of the agglutinated juxtapositions described in connexion with
participles and of the futures described above, but also of the
frequency of analogous groups with verbs other than the verb
"to be".

Among the most characteristic should be mentioned the

expressions formed with the verb "to go"; we have seen above the futures and the Shina past, where this verb is in participle form.   It can be used to make passives, when employed in personal form.

In Kashmiri this verb is constructed with the oblique infinitive; *gupana yima* I shall go to the hiding, I shall be hid, in Bengali apparently with the direct infinitive (formerly a participle): *dekhā jāy* or *hay* 'is seen'.

We also find "to go" accompanying the passive participle agreeing with the subject, especially in Hindi, Panjabi, Marathi and Oriya: Hin. *wŏ mārā gayā* he was killed; *maĩ mārā jātā hūṃ* I am being killed, ruined.

This construction is less easy to explain; is there, to start with a confusion between Pkt. *jāa-* from Skt. *jāta-* from the root *jan-* (Karpūram. *churio jāo mhi* I am (have become) covered) and Pkt. *jā-*, Skt. *yā-* to go, the continuative sense of which makes a kind of auxiliary (cf. Hin. *wŏ kahtā gayā* or *rahtā* he continued to speak; *merā galā baiṭhtā (baiṭhā) jātā hai* my voice is going weakening (is going to be quite weakened)?   Is it an Iranianism? Persian and Afghan in fact employ *śudan* in the same way, its old sense being "to go".   In this case Urdu would be the intermediary and the model of the other languages.   In any case the construction seems to have spread only in recent times and perhaps under the influence of English.

Is it the same with the construction with the verb "to be"? In any case the old indigenous system supplemented the passive with the neuter-passive stem opposed to the causative-active stem, v. p. 244; apart from local turns of phrase, e. g. Kati *vinagan ung-* to receive blows, O. Singh. *gasanu lahami* I receive blows (a turn of phrase already indirectly attested in the Pali of Buddaghoṣa, v. *Crit. Pali Dict.*, s.v. *antarakaraṇa-*), mod. Sgh. *gasanta yedenavā* I am exposed to blows, Hin. *dekhnẽ mẽ ānā*, *dikhāī denā* to come in sight, to give visibility, to be seen, visible; as for the types *mār khānā* to eat blows, to be beaten, *sunāī paṛnā* to fall into hearing, to be heard, we have already pointed out that they have analogies, the former in Iranian, the latter in Dravidian.   In Bengali, besides *āmi dekhā paṛi* I fall seen, there is *āmāke dekhan jāy* or *hay* for me sight goes, exists, i.e. I am seen, I have been seen.

It is obvious that we have no longer to do with grammar here. It is a question of a peculiar use of turns of phrase of more general currency, which characterize Indian phraseology.   It is sufficient

to call to mind the use which Bengali makes of the verb "to fall',
for example: *se gắche uṭhiyā pắrila*, *se gắche úṭhiyā paṛila* where
according to the position of the stress accent, there is or is not
grouping, with the result that two contradictory meanings can be
obtained; having climbed the tree he has fallen, he has succeeded
in climbing the tree (Anderson, *Manual of the Bengali language*,
p. 35).   The verbs for taking, giving, throwing, are noticeable for
serving to give an intensive meaning: Beng. *ḍākiyā dei* I give while
running, I run; "to release" is used in two languages so far apart
as Gujarati and Kashmiri to reinforce the past participle: *teṇe
rāṇī-ne nasāḍī-mukī* by him (to) the queen was driven out; Kash.
chuh gup^u*-mol*^u he was hidden.   The wealth of forms, which
encumbers descriptive grammars does not then afford any
evidence for the nature of the true conjugation.

Voice

The impersonal verb is not unknown to old Sanskrit: MS. *yád vái púruṣasyāmáyati* when man is ill, TS. *prajábhyo' kalpata* it went well for the creatures, RV. *ávarṣīt*, ŚBr. *varṣiṣyáti* it has rained, it will rain; but *varṣ-* has most often an explicit subject; and in the ŚBr. *ugró váti* it is blowing strongly, which is precisely that given as the usual formula, *yadá bálavad váti* when it blows strongly, there is a masculine subject implicit. Sanskrit has, in reality, developed the impersonal only under the form of the passive. It is a consequence of the fact that in this case the subject is expressed by the instrumental and of the parallelism with the verbal adjectives in *-tavya-* and *-ta-* offered by the personal forms of the passive. The modern languages have no difficulty in expressing the subject: Hin. *mēh* or *pāṇī partā hai*, properly "the cloud" or "the water falls", *bādal garjlī hai* the cloud thunders, it thunders, *bijlī camaktī· hai* the lightning flashes, there is lightning, *sir mẽ dard hai* in the head there is pain, I have a headache, Kati *šē tinn* frost occurs; Nuri must be excluded, in which *varsr'ed dinya* the world, the weather rains, is an Arabicism, besides which, moreover, *varsari* it rains, is also used. It obvious that the subject may be a clause and even introduced subsequently by "that" like Skt. *yat* and later *ki* taken from Persian: Hin. *bihtar hogā ki...* it will be better that...

As for the relation between the subject and the personal verb, it is expressed in Sanskrit by endings of two kinds: active and middle. Of these last the passives alone have retained a definite significance in classical Sanskrit, at the same time making use of a special suffix. As we have seen, the category has survived into middle Indian, while losing its characteristic endings. In Neo-indian the category no longer exists except to a limited extent, the passive expressing itself in a large number of cases by periphrastic equivalents; yet the decay of the old passive is incomplete. As for the recent formations described above, they are of literary origin and in large part due to European influence.

In any case, the history of the middle-passive, like the absence of the impersonal, bears witness to the need of seeing things in active form; the passive forms being current in the present-future at a time when the past was of necessity expressed as a passive, one might have expected the formation of an entirely passive verb. In fact several languages use forms for the subjective case which may be suspected of being oblique: this is clear above all in the pronouns, and that not only in Shina on which Tibetan influence is presumed (*LSI*, I, 1, p. 350), but also in Hindi, for example: *maĩ* 'I'. The linguistic feeling of to-day, however, regards them always as nominatives and the same linguistic feeling, to judge by the teaching of the grammarians, analyses the passive type *maĩ ne yih kitāb paṛhī* I have read this book, as an active construction entailing agreement with the complement.

Gender

The forms with a personal inflexion have a much smaller place in the conjugation, if they are compared with the participial forms accompanied or not by other verbs. It may be said therefore that the expression of gender takes an important place in the languages in which the adjective admits it: Hin. *maĩ boltā* or *boltī* I should speak, *maĩ bolā, bolī* I spoke; Mar. *mīṃ uṭhtõ, uṭhtẽ* I should have risen, *mīṃ uṭhlõ, uṭhlẽ* I rose, etc.

In the languages, which, like Hindi, express the passive in the past tense (*aurat ne ghoṛā mārā, ghoṛī mārī* the woman beat the horse, the mare; properly: by the woman the horse, the mare beaten) the gender completely dominates person. The impersonal turn of phrase *aurat ne ghoṛe (ghoṛī) ko mārā* by the woman to the horse (mare) it has been given blows, suppresses the importance of the gender without restoring its rights to the person; similarly the Nepali honorific.

The expression of gender is absent only when it is absent from the adjective; in Singhalese, in Kafir (including Gawarbati in which the adjective agrees partially), in Kalasha, Pashai and Khowar, and finally in the eastern group; even in Bhojpuri the conjugation still takes it into account: 2nd sg. masc. *dekhas*, p. 298 fem. *dekhis* thou seest, at a time when the agreement of the adjective is no longer to be found except in the poetic possessive (*morī* my).

Person and number

We have seen how the expression of person tends to reappear in the participial forms, in which in principle it was not implied; moreover, the pronouns especially of the 1st and 2nd persons are generally expressed, without there being any obligation to do so.

The sense of social hierarchy, highly developed in India, has to some extent complicated the old use of the person. Not indeed in old Sanskrit in which at most the manner of addressing people according to their station is distinguished (e.g. *bhoḥ* to a Brahman); but a later roundabout formula like *bhavant-* is used for addressing a respectable person; in Pali and Prakrit, especially in polite literature, we also find pronouns in the plural. This became the rule in the cultured languages. Now whereas the use of "thou" is universal in Romany, it implies familiarity, tenderness or scorn in the Indo-gangetic languages. In Hindi the 2nd person of the plural is used for ordinary relations with an inferior; the polite form is the honorific 3rd plural, accompanying or implying a subject in the 3rd singular: *āp* properly 'oneself, himself', cf. p. 194, *mahārāj, huzūr, sāheb*, etc.; for an honorific subject in the 3rd sg. requires a verb in the plural at all events: *rājā farmāte hai* the king commands, says. In consequence, in order to express the 1st sg., *mai* can be used and with a tinge of humility, words of the type *banda* (your) servant, with the 3rd singular; but *ham* we, is usual with no special implication: *ham nahīṃ karenge* I shall not do it. In Marathi and Gujarati there are analogous rules, with this complication due to the presence of three genders, that the respectful form of the feminine is the neuter: *bāī-sāheb ālīṃ astīṃ* the lady would have come, Guj. *tem-nī sāthe rāṇī paṇ āvyāṃ che* with him (them) the queen also came (is there a link between this and the fact that the Hindi type fem. plural seems to be an old neuter? p. 169). In Singhalese the plural *uṁba* or *nu(ṁ)ba* you, as in the 3rd person *un-dä*, designates an equal or an inferior, whom one treats politely (whence the creation of a new plural *uṁba-lā*): respect is expressed by *tamu-sē* (apparently for *ātmanāṃ chāyā* your shadow) or *nubā vahansē* the shadow of your sandals; similarly in the 3rd person of the masculine *unnähē, unvahansē* in place of *ū* "he" (but the fem. *ä* does not admit of respectful forms); cf. *gurunnānsē* the master.

The use of pronouns in the plural has had morphological consequences. In Bengali for the opposition *mui: āmi* I: we, *tui: tumi* thou: you has been substituted the opposition:

mui, tui   I, thou   ⎰ humble
morā, torā   we, you   ⎱

āmi, tumi   I, thou   ⎰ normal
āmrā, tomrā we, you   ⎱

So in the second person we shall have:

tui karis (familiar) thou doest
tumi kara you (a single person) do
tomrā kara you (several persons) do

naturally not counting:

āpni (āpnārā) karen Sir, you (Gentlemen, you) do.

And in the imperative the form of the 3rd plural is valid for the 2nd: *āpnār abhiprāy byakta karun* explain your intentions.

In the 3rd person we not only have the scheme:

se kare he does, it does, *tahārā karen* they do, but granting that a pronoun previously plural, *tini*, has been used as a singular, we have the originally plural verbal form used with two values:

tini karen he does, *tahārā* or *tām̐hārā karen* they do.

In Maithili the matter is taken still further; on the one hand the pronouns are displaced as in Bengali *ham* I, *tõh* thou (old plurals), *ham sabh* all the I's, or rather, all of us, so "we", *tõh sabh* you (all); but the verb no longer in any way expresses number. The idea of the honorific has completely replaced number in a complicated system, in which the forms expressing the old idea constituted the basis of the new: "thou seest" is expressed in three simple ways: *dekh, dekhah*[u] an old plural and the same with a particle *dekhahu-k*; further with "thee" and "you" may be used *dekhaichah*[u] if the complement, whether direct or not is a thing, animal or a negligible person and *dekhai chahūnh*[i] (a pronominal suffix in the oblique plural), if it is a question of a respectable person; on the other hand if the subject "you" designates one or several respectable persons, use will be made of *dekhaichiai* and *dekhaichianh*[i] according to the degree of respectability of the complement.

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Here one sees the nature of the complement acting on the ending; it happens even that the 'person' of the complement is marked, when it is the 2nd person:

Murtā nenā kẽ măral[a] *kai* M. has beaten the boy
Murtā tog[a]*rā kẽ măral*[a] *kau* M. has beaten thee

the ending is the old ending of the 2nd pl. *-ahu*, thus there is here the verb agreeing with the complement.

It may happen that the indirect form of expression due to a sense of politeness has the effect of eliminating the person. This is first of all the case with the polite imperative expressed by impersonal passives, as in Hindi *dekhiye* be so good as to look, or by the infinitive alone (polite), or by expressions with *cāhiye* it is necessary. Nepali has created for itself an honorific impersonal conjugation in imitation of Tibetan:

tes le garnu bho by him to make was, he made;

and with loss of the postposition, which was making the construction clear:

tapāī sunnu huncha your honour is to hear, you hear;

There is also a personal honorific conjugation, which rests in the same way on the infinitive, of the type *tyo garne bhayo* he became to make, he made, *prasanna-garāune bhaye-kā chẫdā* being (3) becoming (2) to render satisfied (1), provided that they made them satisfied.

In European Romany the 2nd plural *-tha* should phonetically result in -*el, which would clash with *-el* from the 3rd sg. *-ati ;* this clash is no doubt the origin of the general replacement of the 2nd plural by the 3rd (so far as concerns the verb, not the pronoun). Further, this 2nd plural, in the verb "to be" only, has been given the force of singular under obscure conditions, which indeed must also be due to phonetic accident, for Romany regularly distinguishes *tu* thou, from *tume* you.

PART III

THE SENTENCE

I. THE VERB "TO BE" AND THE NOMINAL SENTENCE

Sanskrit received from Indo-iranian a verb of existence, *as-*, supplemented, by the verb "to become" *bhū-* notably in the future and aorist; moreover, the present of this second verb, being thematic, at the same time progressively assumed the sense of "to be". The verb "to exist", in conformity with Indo-european and Indo-iranian usage, can serve as a simple copula "to be"; but when so used, it is normally wanting in the third person and can be omitted in the other persons when the pronoun is expressed:

RV *kvèdånim súryah* where (is) now the sun? *kvà ṛtám pūrvyám gatám* where (has) gone the first order? *ná devåsah kevatnáve* no gods for the miser; *tvám váruṇa utá mitró agne* Agni, thou art V. and M.; but *tvám hi ratnadhá ási* for thou art generous.

Vedic prose preserves this tradition and develops certain peculiar turns of phrase, e.g. the formula of equivalence A. Br. *paśavo vā ete yad āpaḥ* they (are) the cattle, are the waters. The Mahabharata uses sentences in this way introduced by a pronoun (including the anaphoric), interrogative sentences and particularly those in which the predicate is a verbal adjective of result (*-ta-*, *-tavant-*) or of the future (*-ya-*, *-tavya-*); to which must be added the remote future made by a periphrasis formed from the noun of agency in the masculine singular: ŚBr. *adyá varṣiṣyati... śvó vraṣṭá* to-day it will rain... to-morrow it rains; however this periphrasis had no vitality.

In conclusion, the verb "to be" hardly exists in the present, except in the two first persons, when it is equivalent to a pronoun.

Asokan expresses "I am an adept" indifferently as *sumi upāsake* (Gavimath), *upāsake sumi* (Sahasram) or as *hakam upāsake* (Siddapur, Bairat). The verb "to be" goes so far as to figure in a sentence containing a verb, provided that it is affixed to the subject: MBh. *eso'smi hanmi saṃkalpam* (it is) I, I shall ruin his project, Pa. *saṃviggo'mhi tadā āsiṃ* then I have been frightened;
whence in epigraphic Singhalese (*Epig. Zeyl.* III, 258, 132 and 269, n. 4): *Daḷanā-mi bat dinmi-yi, sī-mi mama d... batak dinmi*

-*yi* (it is) I Dalana, I have given a meal; I, Sī., I also have given
a meal; and in the plural *denamo... dunmo* we the people *(*jana-
smaḥ)*, we have given *(*dinna-mho)*. A fortiori in the 3rd person
asti introduces a narrative with the simple sense of "well, then".

The word expressing existence has moreover varied.

The N. W. border alone preserves the use of independent *as-*,
transforming it, moreover, into a thematic verb: Kati *tuse nam
kai aze* what is thy name? (we should take into account also the
survival of *-ās-* to remain, Skt. *āste*, Pa. *-āsati*, which is true at
least for Kashmiri). Further, several groups of languages have
utilised the old preterite, Skt. *āsīt*, Pa. Pkt. *āsi*, for the formation
of tenses of the past: Tulsidas *racesi* he arranged, Lakhimpuri
2, 3 sg. *dekhis[i]* thou hast, he has seen; preterite of European
Romany: Greek *ker-das* he made, *kerel-as* he was making, and of
the North-west: Maiya *kut-as* I was beating, *kutel-as* I had beaten;
and with the participle, Shina *zamĕsu* he beat, Panj. *jāndā-sā* he
was going, *giā-sā* he had gone.

Otherwise, there is hardly anything remaining of the old verb
but the 3rd sg. of the present, Pa. Pkt. *atthi* and with the negative
Pa. Pkt. *natthi* in the sense of "there is, there is not; O. Mar. *āthi*,
nāthi, Singh. *āti*, *näti* etc.

From Sanskrit onwards, as we have seen, *bhavati* gave forms
to the present, which were phonetically more convenient than
the plural *smaḥ*, *stha*, and dual *staḥ*, cf. Marouzeau, *Mél. d'india-
nisme S. Lévi*, p. 153; it supplies in a general way all the third
persons. It is found very early acting as an auxiliary with verbal
adjectives: in Patañjali *bhāṣito bhavati* the Nirukta comments
2 *śavatiḥ... bhāṣyate* the word *śav-* is said (exists) in the language.

Other verbs, moreover, are found from Sanskrit onwards used
particularly to denote duration: besides *ās-* and *sthā-* to remain
we meet with *i-* (Vedic), *yā-* (Hin. *jā-*, etc.), *car-* to go, employed
with participles, *vidyate*, *vartate* to occur (this last word survives
as an auxiliary in the eastern group and partly in Kafir); in middle
Indian there appears *acch-* to remain, later *rah-* to remain, *āh-*
to be, all words of difficult etymology; in Singhalese *iňd-* (Skt.
sad-) properly, to be seated, cf. Hin. *baiṭhnā*. These words supply,
as well as simple copulas, affixes more or less agglutinated with
participles.

But the presence of a copula is not necessary: the nominal
sentence survives in the modern languages, even independently
of the verbal use of participles. It is nevertheless far from being

consistent; it is frequently met with in the archaic form of these
languages: poetry, literary narrative, proverbs: Sind. *ūnho khūhu
uthẽ* a deep well (is) there; O. Guj. *pānkha pīlā ne paga pāṇḍurā*
(O parrot) thy wings (are) yellow and thy feet white; O. Kash.
gangi hyuh^u na tīrath kāh no pilgrimage (is) like the Ganges.;
Oriya (song) *koili, thaṇa je sundara beni poe* cuckoo, together how
graceful they (were), the two brothers; Hin. *jaisī bonī, waisī bharṇī*
as (is) the sowing, so the harvest, *corī kā gur mīṭhā* stolen sugar (is)
sweet.

Bengali seems to use the same syntax with still more liberty:
spaṣṭa kathā-i bhāla plain talk (is) truly good, it is better to be
frank; *e surṭi bara miṣṭi* this melody (is) very pleasant; *se ekjan
bidesī lok* he is a foreigner; *eṭā morag nā murgī* (is) it a cock or a
hen? But the majority of languages prefer to express the verb
"to be"; the bilingual manual of conversations from which the
latter examples are borrowed (N. C. Chatterjee, *A manual of
colloquial Hindi and Bengali*, 1914) gives for Hindi: *sāf sāf bolnā
bahut hī acchī bāt hai* (to speak very clearly is a much better
thing), *yĕ rāg bahut acchī hai, wŏ pardesī hai, yĕ murgā hai yā
murgī?* And this is no characteristic of an advanced civilisation:
Ashkun *toā nām kā sēi* what is thy name? *apāi gōrä ċit-wyēlī sēi* how
old is this horse? *kyawa mulī do rupai a kirān* the price of that is
two and a half rupees; Shina employs the verb even in the third
of these types of sentence: *anisei gāċ du ḍabale ga āṣ ānā* (two
rupees eight annas) *hani*.

Singhalese appears to be more archaic: *mahatmayā me rata
miris* Sir, this is red pepper; *mokada karenne* kim kartavyam,
what's to be done? *menna ēka* here he is; as an equivalent it often
employs the copula *-yi* representing Skt. *ili: ū hora-yi* (so coro ti),
he is a thief, *iḍa madi-yi* the room is insufficient, *mē sop taḍē väḍi-yi*
this soup is too strong, cf. *bohoma hoňda-yi* very well. Nuri
makes use of a non-verbal suffix in the same way, sg. *-ek* (Iranian?
cf. p. 247) pl. *-ni*.

It is to be noted that acting as a copula, which seems then to be
generalised, has not impaired the old meaning of 'existence', the
permanence of which has as its counterpart the total absence of
a verb "to have",

Together with the flexional wealth of Indo-european Sanskrit preserved the possibility, which depends on it, of arranging the elements of the sentence at will. This facility is indeed only used for literary effect. There is a customary order, which is inherited from Indo-iranian and is carried over to middle Indian.

It may be summarised as follows: 1) the subject (or its psychological equivalent) at the head; 2) a group formed by the predicate: the verb or its equivalents at the end, except the imperative and the indicatives introducing a narrative, which are normally at the beginning; the verb is preceded by its complements, the indirect complements in principle preceding the direct object; however the complements indicating destination (infinitive, substantive in the dative) tend to be placed after the verb in the Brāhmaṇas at least; it is a usage which comes from Indo-iranian (cf. Meillet-Benveniste, *Gr. du vieux perse*, p. 240) and persists; several examples are found in the inscriptions of Aśoka.

Groups of words are as a rule organised according to the same fundamental tendencies: the qualifier: genitive, attributive adjective etc., precedes the qualified; it is the same thing in compounds. Preverbs, at first independent, lose the faculty of following the verb the sense of which they modify and are then prefixed to it; employed as prepositions (a use which becomes progressively rarer), they tend to follow the noun,—which agrees with their tendency to fix themselves at the head of the verb— and finish by taking a position like the adverbs and nominal forms or the absolutives which are substituted more and more for prepositions.

We have seen that the opposition of the subject and the object, which is stressed in Sanskrit both by the form of the stem and by the ending, grew less and finally disappeared, since nearly all the modern languages have only one form of substantive for the two functions. This confusion must have contrived to establish an order, which was at first only a matter of custom. The same tendency must have been encouraged by the need for distinguishing between the participles employed as attributes and predicates; thus Or. *paḍilā gacha* the fallen tree, *gacha paḍilā* the tree fell.

p. 307   The normal modern order is: real or logical subject, indirect
and direct complements, adverb. verb:

Hindi: *maĩ tum ko yě kitāb detā h ū* I to-you this book giving
am, *guru-patnī-ne hamē tumhē indhan lene bhejā* the master's wife
sent us and you to collect firewood.

Chattisgarhi: *sikārī-har mācān-upar-le bandūk-mǎ bhālū-lā golī
māris* the hunter from the height of his platform from his gun to
the bear fired a ball.

Bengali: *āmi tomāke ek ṭākā diba* I will give you a rupee

but we should distinguish:

āmi ei ām-gula nūtan-bazār-theke enechi I have brought you these
mangoes from the new market

from:

āmi nūtan-bazār-theke ei ām-gula enechi it is from the new
market that I have brought these mangoes.

Singhalese: *gurunnānsē maṭa iskōlēdi siṃhala akuru igennuvā*
the master to me at the school the Singhalese letters has taught.

It is the same in Dardic, except in Kashmiri alone in which
the verb may precede complement and predicate:

yim pōś ma ̤caṭukh these flowers do not pick

but:

khas(khotu) yimis guris mount (he mounted) this horse.

In the stories of Hatim we read:

dunyāhas manz gaċhav we shall go into the world

but:

ticha chěna pātaśohi manz such (women) do not exist in the
kingdom

tim ananay khěn camruvᵘ kara they will bring thee to eat peas
of leather.

We find the subject at the end also in the same narratives:
amis mā āsim šemārasondᵘ zahar on her perhaps will be-on-my
(queen) the poison of the great serpent

tath-kyutᵘ dyutᵘnas šeštruwᵘ panja for that (there) was given
by her to him a hook of iron;

but in subordinate clauses the verb remains consistently at the
end:

*mě dyututh na zāh ċhāwᵃli-chira yěmi-siitin pananyau-mitrau
sān wōtsaw karahö* to me has not been given by thee ever a goatskin,
thanks to which with my own friends festival I can make.

The origin of this reversal of construction is unexplained; the
Burušaski and Tibetan languages, which border on Kashmir,
have the Indian order.

Romany equally prefers the order: subject, verb (and in narrative: verb, subject), complement and predicate: Rumanian dialect *voi l'as les pala i kor* she takes him to her heart, Welsh dialect *i tarni juvel piradas xesliar* the young girl opened the cupboard; this indeed is not strictly observed: the Rumanians call the gipsies *mar man de* bread me give.   Here one can detect a European influence; in point of fact Persian has on the whole the Indian order; as for Armenian, it still keeps the old freedom. On the other hand Nuri freely sets back the verb to the head of the sentence, under the influence of Arabic.

The Indo-iranian negative comes at the head of the sentence or before the verb; this second construction, which coincides with that of adverbs and preverbs, becomes the more usual one; so we get the ordinary groups like Skt. *na śaknomi* I cannot, *nāsti*, Pa. Pkt. *natthi* (whence Mar. *nāthi*, Singh. *nāti*, Armenian Rom. *nath*, etc.) and more recently Mar. *na-ye* does not go, Shina *nuš* indecl., does not exist.   But the negative tends to reach the final position in Kashmiri, in Nepali (the negative conjugation, in which the negative precedes or follows), in Bengali, in Marathi (the negative is suffixed to the verb to such an extent that it is inserted between stem and ending: *na karī* or *karī nā* he was not doing, *karīs nā* and *karī-nā-s* thou wert not doing; *karī-nā-t* they were not doing; whence the negative conjugation of Konkani: *nidnā* he does not sleep, *nidnānt* they do not sleep, etc.).

From these postposed negatives we must distinguish the final negative expressing the interrogation "is it not?", current, for example, in Hindi.   It is in reality one word summing up a whole sentence.   This is also the origin of the negative denoting an alternative: Kati *Aoghān spāhi lest ai na Bilian lest ai* the Afghan soldier is (he) the better (if) not, is the Chitrali the better? Mar. *nā* nor, or, nay.

Prohibition is expressed almost everywhere by *na* with the imperative or one of its successors; Skt. *mā́* of Indo-european origin survives only in Gujarati, Romany *(mā)*, Sindhi, Kashmiri (*ma*, *ma-ta*; *mā* expressing doubt) and Hin. *mat*, dial. *mati* (etymology? *bahu-t* much, enters one's mind, but there is no necessary connexion).

The interrogative sentence resembles the positive and can only differ from it in tone, when not introduced by interrogative pronouns and adverbs.   But in this case—it is so from Indo-iranian onwards—speakers like to add a word equivalent to 'what?': Gāthā *kat̲*, *kā*, Av. *čim*; Ved. *kát*, Skt. *kim*; Pa. *kiṃ*; Sindh. Nep. *ki*, Guj. *śū*, Kash. *kyāh*, Hin. *kyā*, Mar. *kāy*.   The negative is also

made use of: Hin. Chatt. *nā*, Beng. *ki nā* or not. One does not know what to say about Singh. *da*, which ends sentences, means
at first "also" and is appended to interrogatives: *kav-da* who? nor about Kati, Ashkun, Khowar, Shina postposed -*a*, which in a curious way recalls Dravidian.

III. THE LINKING OF SENTENCES

Independent sentences

Sanskrit inherited from Indo-iranian a certain number of particles serving to mark the connexion or opposition of sentences; some placed after the first word: *ca*, *id*, *nú*, *hi*, *vā*, etc., others intended to introduce the sentence *ápi*, *átha*, *cǎd*, etc.; it has even increased their number to start with, among other methods by the juxtaposition of several particles like Skt. *céd*, *kúvid*, etc.; particles tend to accumulate also in ancient prose, but produce few new fixed combinations like Skt. *athavā*, Pa. *iṃgha* (explained Saddanīti, p. 898, n. 2). It is because the particles, while still numerous, lose their strength as they diminish in number; epic often uses them as expletives.

The absence of a connecting link, which is normal as a rule, has taken on a stylistic quality; it accentuates opposition and characterizes technical prose. The language of Aśoka has even created a new word *cu* *(ca+tu)* to denote opposition. If you look through the edicts of Aśoka, you will see that the sentence is rarely without a connecting link. Such is the case, for example, at Girnar at the beginning of the 5th edict: *ka(l)lānaṃ du(k)karaṃ yo ādikaro ka(l)lānaṃ so du(k)karaṃ karoti* a good action is a difficult thing; he who undertakes a good action, does a difficult thing; one sees that it is a matter of sententious style; and the sequence is resumed by a pronominal particle (equivalent in form to Vedic *tád* or *tắd*) which is difficult to translate, if one considers the sentence, which follows it: *ta mayā bahu ka(l)lānaṃ kataṃ ta mama pu(t)tā ca po(t)ā ca... ya me apa(c)caṃ anuva(t)tisare tathā so sukataṃ kā(s)sati;* Senart translates: Now *(ta)* I have myself performed many virtuous actions. Similarly *(ta)* those of my sons... who shall thus follow my example, these will do good.

The want of precision in the meaning of the particle is a sign that its function is chiefly to mark the passage from one sentence to the other.

As in the last example cited, the link between the sentences may well be marked by a pronominal element. This may be a pronoun properly so called, referring to a noun or relative pronoun in the preceding sentence; it is the anaphoric *sa(ta-)*; the frequency of its use gives old prose a stamp of decided monotony. This pronoun also became enfeebled: it is generalised as a correlative in Vedic prose, while in poems it may be omitted without difficulty; it thus loses its meaning and denotes only the connection of the sentence, giving it at the most a consecutive shade of meaning; the nom. masc. singular *sa* becomes entirely expletive in Skt. *sa yadi*, *sa yad*, Pa. *sace* if, *seyyathā* or *tamyatha* as, Aśokan *sa*, *se*, *so*, Pa. *se;* at this point we may recall that it comes very near to supplying a definite article in the epic language, a tendency, which indeed, as we have seen, has come to nothing.

In the modern languages asyndeton and linking by anaphoric pronouns still predominate. The stock of particles is very low: Singh. *-da*, *-t* is perhaps the only survival of *ca*, if indeed it is not the emphatic particle like Mar. *c(i)* Chatt. *c* from Pkt. *ccea*, cf. Marw. *-ij*, Guj. Sind. *-j* from Pkt. *jjeva*. New heavy conjunctions have been created signifying "something else further": O. Hin. *avara*, Hin. *aur*, Nep. *aru*, Ass. *āru (aparam)*, Mar. *āṇi*, *-n*, Guj. *ane*, *ne*, Nep. *ani* "and", Sind. *añā* however *(anyat);* similarly Hin. Sind. *par* (Skt. *param* further); less clear is the origin of Rom. *te*, Kash. *ta* 'and', Nep. *ta* however (going back perhaps to *tathā*), Singh. *hā (saha)*, Shina *ga* (?). The adversative adverb *punaḥ*, which is post-Vedic and unexplained, has been carried through middle Indian (Pa. *pana; puna* survives in the sense of "anew") to Sind. Or. *puṇi*, Guj. Mar. *paṇ*, Nep. *pani*, O. Hin. *puni* (Sgh. *pana*, *puna* means rather "again, anew"; this will then be a Palism); it keeps the initial intact, a sign of initial use. Very characteristic is the manner of rendering "or": use has been made of a pronominal stem, Hin. Beng. Nep. *ki*, Sind. Panj. Guj. *ke* (elsewhere replaced by Sanskrit or Arabic borrowings); in other words there are no longer any conjunctions, we have to do with an isolated interrogative sentence.

SUBORDINATION

Old Sanskrit has two procedures for denoting subordination 1) the use of the subjunctive, which in this case has no modal value, and becomes just a grammatical tool; it is introduced by the relative pronouns or adverbs, or by the negative *néd*, which accompanies the indicative as the main clause:

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RV. X. 85, 25-26:

prétó muñcá̇mi ná̇mútaḥ subaddhá̇m amútas karam
    yatheyám, Indra, mí̇ḍhvaḥ, suputrá̇ subhá̇gásati
    .....
gr̥há̇n gacha gr̥hápatnī yá̇thá̇saḥ

I free her from here, not from there: there I mean to keep her, so that, O generous Indra, she may have children and good fortune... Go into the house to be the mistress of the house.

X. 51, 4;

                                -*á̇yam*

néd evá̇ mā yuná̇jann á̇tra dévá̇ḥ

I have gone for fear that the gods may join me to this place still.

2) The accentuation of the verb. To the above examples may be added the peculiar use of *ca* in the sense of "if":

II. 41,11:

índras ca mr̥ḷá̇yá̇ti no
    ná̇ naḥ paścá̇d aghá̇m naśat

if Indra favours us, no evil can then assail us.

Similarly *kuvíd* whether? which initiates an indirect interrogation and even *hí* for, which is naturally affirmative and goes with the indicative:

III.53, 18:

bá̇lam dhehi tanú̇ṣu naḥ... tvá̇m hí baladá̇ ási

put strength in our bodies... for thou art the giver of strength.

The accent serves to mark a psychological subordination, which is disclosed by nothing else (v. Meillet, *BSL*, XXXIV, p. 122) MS. *tá̇smá̇d badhiró vá̇cá̇ vá̇dati ná̇ śr̥ṇoti* that is why a deaf man (even if he) speaks, hears not; RV. *tú̇yam á̇ gahi ká̇ṇveṣu sú̇ sá̇cá̇ pibá̇* come quickly, drink with the Kaṇva; TS. *utá̇varṣiṣyan vá̇rṣaty evá̇* it is in spite of him that he gives rain.

The two processes belong exclusively to the old language. Asokan has no more than the remnants of the subjunctive, which had a somewhat reduced use in the Brāhmaṇas; as for the accent, not only does Pāṇini note it in new subordinate clauses (with *purá̇* before that), but admits it in numerous forms of principal p. 312 statements, e.g. in interrogation with or without *kim* is it that?: which is as much as to say that, at the end of the period when it was noted, the accent had very nearly lost its syntactical force.

Classical Sanskrit and middle Indian have no longer any grammatical process for denoting subordination.

Clauses introduced by the relative *yat* and by the other relative adverbs *yá̇vat, yadi, yathá̇,* etc. are formed as if they were

independent and the indicative takes precedence of the optative. The meaning of the particles has hardly yet been evolved: even in *yat* which comes the nearest to a true particle, the relative sense is still on the surface; its use after the verbs "to say, believe, know" is not generalised; similarly in Asokan and in Pali, *kiṃti* states an intention, but can be translated simply "saying to oneself, what, why?" and should perhaps be so translated; as interrogation has remained a means of marking the stages of speech in the popular language, cf. Skt. *kiṃca* what more? which is used for coordination like *aparam, tathā ca* something else; and likewise.

The early language had at its disposal means of supplementing subordination. Such is the apposition of the participle, according to Indo-european usage. Simple apposition of one noun to another may imply a movement of the mind and be equivalent, for example, to "because..., although..."; the participle allows also the insertion of the idea of a verb, and so is equivalent to a clause.

In this use it is placed in apposition with the subject or the complement, particularly with the direct object. It marks coincidence in:

RV *aruṇó mā... yántaṃ dadárśa hí* the Red saw me, while I was going;

an opposition in:

Ts. *mitráḥ sán krūrám akaḥ* although a friend, thou wert cruel;

a condition in:

Kauṭilya: *tyaktaṃ gūḍhapuruṣāḥ... hanyuḥ* if abandoned, the secret servants should kill him.

With verbs of feeling or opinion:

TS. *parābhaviṣyantī manye* I feel that I am going to collapse, class. *praharan na lajjase* art thou not ashamed to strike? *āśaṅke ciram ātmānam paribhrāntam* I suspect that I have a long time to wander.

The participle, object of the absolutive in this sentence from the Pali Jātaka, would require in French a relative pronoun heading an adjectival clause (although in English the participle may be retained):

kumāro kammārena kataṃ rūpakaṃ suvaṇṇagabbhe khipāpetvā...

the prince, having deposited in his treasury the statue, which the blacksmith had made... (English also: 'the statue made by the blacksmith').

p. 313   The participle can also, in agreement with a substantive in an oblique case (especially the locative), supply the equivalent of a clause primarily adverbial, later to imply a mental qualification,

which would be inserted into the principal clause, but is in itself complete and treated as an independent sentence: Raghuv. *mā meti vyāharaty eva tasmin* despite his protestations.

The same result will be obtained again:

1) with infinitives expressing purpose (in the accusative or in the dative: RV. *áhaye hántavai* for the dragon to kill, to kill the dragon, *pārám étave* to gain the bank), or, if the case requires it, cause (in the ablative: *trádhvaṃ kartād avapádaḥ*, literally save us from the hole, from falling; *yuyóta no anapatyáni gantoḥ*, save us from going towards infertility;

2) with absolutives expressing a past event and on occasion a mental shade of meaning (v. p. 284);

3) by a nominal compound, permitting a complex apposition, particularly, when it includes a participle:

Ragh. *śruta-dehavisarjanaḥ pituḥ* when he had learnt that his father has left this life (lit. his body).

Kād. *pratīhāryā gṛhītapañjaraḥ* caused the cage to be carried by the portress.

Pali *kumārikāya laddhabhāvaṃ* the fact that we have obtained the princess.

The use of internal apposition and the more or less sharp opposition of correlative sentences are then the only means of subordinating two verbal elements to one another; consequently there is in Sanskrit no complex sentence.

A fortiori, there is no indirect speech: the sentence expressing what is said or thought is a direct sentence, either in isolation or introduced by *yat*, or and this is the most frequent, terminated by *iti* of which the etymology (Latin *ita*) shows that the primitive meaning is "thus": RV. IV, 25,4: *yá indrāya sunávāméty áha* who—let us press for Indra—thus says; that is to say: who says 'Let us press for Indra'; I, 161,8: *idámudakám pibatéty abravītana* drink this water, thus you have said; X, 17,1: *tváṣṭā duhitré vahatúm kṛṇotítídám víśvam bhúvanam sám eti* Tv. performs the ceremony of marriage for his daughter, so the whole world is assembled, which may be understood as "the world is assembled, saying to itself that, because Tv....".

Iti, in introducing direct speech or a reason, fundamentally retains its old significance (which also explains the terminal *ti* of the Asokan inscriptions and *-yi* equivalent to a copula in Singhalese), and in short does nothing but underline the asyndeton.

p. 314 But it is a valuable instrument of subordination: Pa. *ādāya nam gamissāmīti āgato'mhi* I have come to take him away. In a

similar turn of phrase Latin would have a relative governing a verb in the subjunctive.   Note the brevity of the Pali phrase: *suvaṇṇarūpaṃ ti saññaṃ akatvā* without reckoning that it was of gold.

Sanskrit does not therefore transmit proper methods of syntactical subordination and indirect speech to middle Indian and modern Indian; nor have these languages developed further in this direction.   Asyndeton, absolutives, absolute constructions and correlative clauses are still the only processes at their disposal. In languages without clear inflexions apposition was not possible: the participle is not longer met with except in absolute oblique cases.   So far as nominal compounds are concerned, the pathological development, which they have undergone in Sanskrit literature corresponds in no way to its real history; honest texts like Asokan, the average epic, dramatic dialogue and finally the modern languages know only compounds of two terms; it is the same then with Indian as with the rest of Indo-european; the abnormal extension of the procedure in Sanskrit bears not on the grammar, but on the literary history; it dates particularly from the period when the endings of the spoken languages were becoming indistinct, which allowed the formation of loosely linked descriptions; this indeed agreed with the general tendency of the language towards parataxis.

Asyndeton is persistent, especially in the uncultured languages: ex. Ashkun:

tū žātrẽ alis-ba, kitāb pralim (that) thou mayst come to-morrow, I will give you a book

umāid sēi žātrẽ ales hope is to-morrow thou mayst come

tu Bābur diẽṛes kā kōs (when) thou goest to B., what dost thou do ?

k ūṛuṃ ba gōs kal, ċēi Aṣkuṇū tō wiẽtā-ba, sakãṛye miš wērī kales anywhere that thou mayst have gone (at this) moment (and) any Ashkun who may be seen by thee, with them thou wilt converse.

In the more cultured languages the mental link is most often denoted by pronouns or by indeclinables with pronominal stems.

Demonstratives:

Sindhi: *tū īmāndār*u *māṇh ū āhĩ; tāhe-kare to-khe nāib*u*qāzī muqarīr*u *kāryã-tho* thou art a man of trust; because of that I make p. 315 thee assistant judge.   When a demonstrative sums up a series of nouns, it alone has the mark of inflexion in Marathi: *hattī, ghoḍe āṇi bail hyāṃs cārā ghālā* elephants, horses and oxen, to

them give fodder; in the same way we have *Rāmā ģelā asē tyānē aiklē* Rāma has gone, such a thing has been heard by him, he has heard that Rāma has gone; similarly Guj. *te gayo hato e mē sāmbhaḷyū* he had gone, this I heard.

Relatives of every kind tend (as they do in Sanskrit) to be opposed to their correlatives which they precede:

> Mar.: *jo mulgā mīṃ kāl pāhilā toc āhe*
> this is the boy (2) whom I saw yesterday (1)
> Hindi: *khudā jo cāhe so kare*
> may God do (2) what he wills (1)
> *jitnā cāhiye itnā lelo*
> take as much (2) as you wish (1)
> *jahāṃ gul hai wahāṃ kāṇṭā bhī hai*
> where there is a rose, there is also a thorn

jis rūp mē yĕ granth ab miltā hai, wŏ use satrahvīṃ śatābdī mē prāpt huā hogā
the form in which this book is presented to-day, it would have taken (must have taken it) in the seventeenth century.

Bengali: *jāhā icchā jaibe tāhā khāio nā*
> do not eat all you want
> *jatakkhan nā tini āsen tatakkhan basiyā thāk*
so long as he does not come, so long remain, wait till he comes.

The relative alone may be used with more freedom:

> Hindi: *wŏ ādmī jo paṛhnā nāhīṃ jāntā nādān hai*
the (that) man who does not know how to read is ignorant
> Sindhi: *fulāṇe wāpāriᵃ khe pāhᵃjo mālᵘ dino homᵉ, jo hū hāṇē unhᵉ khāṃ inkārᵘ tho-kare*
to such and such a merchant my property has been given by me, who now makes denial of it.

There is uncertainty in the method of expressing an hypothesis, perhaps because it bears no apparent mark of correlation. We find *je (yadi)* in Panjabi and Sindhi, but Hin. *jo* (correlative *to*, *tau*) is obscure: does it come from Skt. *yāvat?* but there are *jab*, *tab* specially for time. Learned borrowings are also used: Beng., Hin. *jadi*, Hin. Sh. *agar*, one Sanskrit, the other Persian; Marathi alone, and this proclaims a recent Brahmanic borrowing, has resumed the Vedic pair *yarhi*, *tarhi* which was appearing no more in Sanskrit except in the Purāṇas and is missing in middle Indian:

> *jar pāūs paḍat aslā, tar yeūṃ nako*
> if it rains then do not come

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O. Mar. *trailokicem anakalita jarhaim rājya joḍaila etha
    tarhaim hem anucita nācarem mīm*
even if undivided rule of the three worlds shall be added to me
here, yet I do not perform this impropriety.   Jñān. (Rājvāḍe)
I. 226.

In the languages which have no relative like Dardic and Romany,
it is the interrogative which takes its place, when it is not the
simple demonstrative as in Shina: *õ muśā vatus õ* the man (who)
has come, he...

Cause is expressed by asyndeton: Beng. *kāran*, Guj. *kāraṇ*
the reason (is that); or by the interrogative: Sind. *cho jo*, Hin.
Panj. *kyūm ki* why (it is) that; finally by absolutives recapitulating
part of the preceding statement, like Skt. *iti*, *iti kṛtvā*, Pa. *iti
katvā*; Mar. *(hem) mhaṇūn*, Apa. *bhaṇivi*, Nep. *bhani*, E. Hin.
bolke, Beng. *boliyā*, Singh. *kiya* properly signifying "having said";
this last formula is also Dravidian.

Several languages make or have made use of a loose
subordination, corresponding in function to Skt. *yat* and variable
as regards form.   Going back, no doubt, in effect to *yena* are:
Mar. *jem*, Guj. Beng. *je*, Kash. *zi*.   Under Persian influence Sindhi
uses *ta*, Hin. Beng. *ki*, Mar. *kīm*, Guj. *ke* (modelled on Marathi
according to Divatia, Guj. lang. and lit., p. 22); the success of
this particle (which has penetrated as far as Malto, a Dravidian
language) must be due in part to confusion with the interrogative,
Skt. *kim*:

Hindi. *khul jāegā ki maĩ rājā hūm* it will be revealed that (or
'what?') I am the king

tum ko avaśya hai ki wahām jāo it is necessary that you should
go there

Guj. *tyām mẽ evī vastu joī ke jivtā sudhī mane sāmbharśe*

there I have seen such a thing as I shall remember all my life.

In Hindi the varied and (on the Persian model?) often pleonastic
use of this particle shows that its function is simply to articulate
the sentence:

Hin. *mālūm huā ki cor kaun hai* it has been realised that who is
the thief

aisī tadbīr kar ki jis se merā peṭh bhare

devise a plan that by which my belly may be filled.

But inversely it can be said generally:

bahut din hue Devanandan ko maĩ ne nahīm dekhā

it is many days [that] I have not seen D.

laṛkiām apnā waqt guṛiām khelne mẽ khotī haĩ behunar rahtī haĩ

the girls who waste their time playing with dolls remain without accomplishments.

Sanskrit, which preserved the moods, did not allow indirect speech; *a fortiori* Neo-indian, which only distinguishes, and that in a somewhat hazy fashion, contingent and factual tenses, isolates quotations by keeping the direct verb and usually their direct form.

Kash. *ċᵃh mang mölis, me gaċhi āsun ratᵃnakorᵘ*
thou ask thy father: I must have the jewelled bracelet
Beng. *ek din dekhle, chabi tār maner mata hoy nā*
one day he noticed the picture was not (is not) to his taste
Romany (Greek); *śunena kelibe kelena* they hear music is being played.

Persian conjunctions are now widely used in such cases, but do not affect the construction:

Sindhi: *mūṃ khe cay āṃīṃ ta paisā chavih rupayā waṭhando, sāṃⁱ* he tells me that: the amount of 26 rupees I will take from thee, sir.

Hindi: *maī ne irāda kiyā ki calūṃ* I decided that I will go
gopāl ne jānā ki tote mē ab prān nahīṃ hai
Gopal perceived that now there is no breath in the parrot.

A kind of indirect construction is provided by a change of person, especially to avoid confusion between a narrator and the person whose speech he is reporting:

Hin. *kyā tum samajhte ho ki maī mūrkh hūṃ* do you think that I am a fool?
bābū sāheb ne mujhe āpko yĕ likhne ke liye kahā thā ki we āpke patr kā uttar kuch bilamb se denge
the gentleman told me to write to you that he will reply to your letter shortly.

Beng. *se bolite che tāhār bhrātār śrāddher janya tāhāke bāṛi jete hoibe*
he says: he will have to go to his house for the funeral ceremony of his brother ("that" is not expressed).

Rom. *dikela i rakli nanai paše leste*
he sees: the girl is no longer with him ("that" not expressed)
Nepali: *hāmiharu ko bharbardāri topkhānaharu kā gāṛi na auna sakun bhani* (The Turks) saying that our baggage and artillery waggons could not come... cf. Turner, *Ind. Ant.* 1922, p. 44 and note p. 48.

p. 318   The syntax of Neo-indian has thus remained elementary and, so far as clauses are connected in correlative form, stiff and

monotonous. It is through internal elements that sentences acquire complexity: nouns of agency like those of Hindi in *-wālā*, of Marathi in *-ṇār;* attributive participles, Mar. *-lelā*, Hin. *-ā huā*, cf. p. 279; various infinitives:

Guj. *tene hyāṃ rehevā do* let him stay here

Hin. *usmē Pratāpsīh tak varṇan milne se, yĕ niścit rūp se kahā jā saktā hai*

from the fact that in this (book) the description goes as far as Pratāpsiṃh, it may be said with certainty that...

Besides these infinitives are the participles used in a nominal capacity, which have been described p. 265, 278, 282; further, the participles in the oblique cases, v. p. 266, 277; finally and above all the absolutives and the participles functioning as absolutives, numerous examples of which have been cited above. These new absolutives have assumed such importance that they supply to the languages not only subordination of clauses, but compound verbs, adverbs and postpositions (Beng. *hoite, ceye,* Hin. *liye,* etc.).

Let us end with a few examples showing how by these means the literary languages endeavour to make the sentence supple and to enrich it:

Beng. (T. Ganguli) *āmrā bibecanā kare sthir karlām tomār ār āmāder kāche theke kaṣṭa pāwā ucit nay*

we have decided on reflection (that) you by staying longer with us it is not right to suffer inconvenience

Hin. (Hari Audh) *to kyā Dayāsankar ke yahāṃ byāh karke*

laṛkī ko janambhar ke liye miṭṭī mē milā denā hī āp acchā samajhte haĩ

but is it that (1) you consider it good (5) to attach to the soil for life (4) (our) daughter (3) by marrying her in to the family of D.?

Hin. (contemporary): *Raghuvardāsjī ne Tulsī carit mē Gosvāmī jī ki jo kalparamparā likhī hai, wŏ mānne yogya hai* one may trust the genealogy of Gosvami written by Ragh. in his life of Tulsi Das

atyant āścarya kī bāt hai ki Bhāratvarṣ mē sau varṣ se adhik angrezī śikṣā hote hue bhī, wŏ unnati jo Japān ne keval pacās varṣŏ mē pratyek viṣay mē prāpt kī hai Bhāratvarṣke kisī bhāg mē dṛṣṭi nahīṃ ātī

it is a remarkable thing that after more than a century of English education in India the progress which has been realised by Japan in every direction in only 50 years is not to be seen anywhere in India.

One sees how a complex style is being formed under the influence of Europe, in which the elements of traditional syntax remain intact for the time being.   Naturally, even this takes place only in the most cultured languages: Marathi, Hindi, Bengali.   As regards this last good examples of literary experiments will be found in D. C. Sen, *Bengali prose style 1800-1857*; it will be seen there to what ponderosity the search for a periodic style can lead. Reaction has ensued; Bengali at least is close to being a language as supple as it is rich.   But it is exceptional.

CONCLUSION

The most cultured Indo-aryan languages, by drawing largely upon Sanskrit and, to supplement it, upon Persian, have succeeded in obtaining a rich vocabulary equal to that of the European languages, but they have not been able to rival their wealth of meaning and the closeness of their connection with mental processes. Further, in spite of convergences, which for a long time past have impressed observers, in particular, with the development of the Romance group of languages, culture has not in India been sufficiently varied or wide-spread for the common language to profit by the work of writers, and for the language of the most refined authors to be nourished from popular sources. There has been a divorce between language and culture.

We are often told that there were indigenous primary schools, but no one would dare to claim that in these schools languages were studied with their rich resources and their refinements as in Europe, though, we must confess, in comparatively recent times. The only language which has been studied as such at all times, is Sanskrit: the appanage of a few, it alone served to transmit knowledge and for the exercise of cultured thought. What are, at the outset, the documents of the modern literatures? Apart from some short and rare Marathi inscriptions, half a dozen Rajput letters and in Bengal one or two collections of practical maxims in verse, they consist of bardic poems or verses of religious or popular inspiration. Written for the nobility and the people, these texts often challenge Brahman supremacy. So far as they have a connection with Brahmanic literature, they transform, not replace it. If we go back further, we find literatures resting on Sanskrit, but reserved for a cultured aristocracy: the language of Marathi lyric and the prakrits of the classical drama are quite the opposite of popular language, even after subjection to cultural influence. As for the famous Bṛhatkathā in Paiśācī, the few fragments which we have, do not give the impression of a popular work. Against this, what do the spoken languages offer? The

inscriptions of Aśoka, so rigid of syntax, and, to some extent,

the canonical books of the Buddhists and Jainas, both hieratic and popular, are linked with Sanskrit culture, so far as they presume one.

The explanation seems to be that in its passage to the lower layers of vaster populations, Indo-aryan, which in Vedic and Brahmanic form presented a degree of refinement unique at this date in Indo-european, lost this refinement and relapsed, if one may say so, into barbarism. Perhaps we may go deeper and even if we cannot make a full appreciation, we can at least note some details of the characteristics of peoples, who have had to learn Sanskrit or languages very similar and were moreover in constant contact with it.

Let us leave aside the prehistoric Indus civilisation with a language, moreover, still unknown; this border civilisation was no doubt already extinct, when the Aryans entered India, much more so in the North, in the fertile parts of the Panjab. We do not know, who the peoples were, on whom the Aryans imposed their domination in this area and we hardly any more about the peoples, whom they encountered later.

It is a natural temptation to identify these peoples with the populations which surround the Aryan territory at the present time, whose languages still survive. Of these languages Tibetan only touches India; perhaps Buruśaski, when it is better known, will one day provide a basis for comparison, although this day appears still far off. There remain the Dravidian languages and the Munda group, which are in contact with the current Indo-aryan.

Dravidian occupies the South of the peninsula and an islet in Balochistan; Munda is spoken on the plateaux of Chota Nagpur between the Gangetic plain and the delta of the Mahanadi with isolated western branches in the Mahadeo hills.

Now, it seems to be accepted that the Aryans were preceded in the peninsula by two migrations at least: one, which seems the older and which some consider to have originated also in the West, would be that of the Dravidians, the other that of the Munda group, the languages of which appear to be related to the Indo-chinese Mon-Khmer and, even as some assert, to languages still further off in the same direction. We have no precise or, indeed, any indirect information about theze two groups as regards the early period, but the parts played by them in later history are very different: the Dravidians are civilised peoples and already before the Christian era, the Tamils had founded prosperous

p. 323 kingdoms, with their faces set towards the Mediterranean through their maritime commerce and possessing a cultured and at least partially original literature. The Mundas hardly come into the picture and it is only modern ethnography that has revealed their importance and even their existence in the shape of little communities amounting in all to less than three millions settled on the outskirts of civilised India. The languages of these two groups testify to their contact with Aryan India and we are tempted to consider them as the occupants of northern India before the Aryan invasion.

It is easy to imagine a prehistoric India in which the Dravidians, like others before and after them occupied the lower valley of the Indus, Gujarat and the maritime kingdoms of the Deccan, while the Mundas held the Gangetic basin and the sub-Himalayan zone of the Panjab: two civilisations separated by the desert portions of the Panjab and the plateaux between the Ganges and the Deccan, but in contact on the Malva side, on the one hand, and on the other hand perhaps with the eastern coast. Later on, the Dravidian languages would have been slowly pushed back towards the South: the resistance to languages the bearers of a superior civilisation is perpetuated in our times (cf. the traces of contact in Marathi and in Oriya, p. 279) the Mundas, less capable of struggling against a civilisation which had on its side the horse, iron and intellectual superiority, would have soon been driven back into the jungles of the plateaux. But the two groups would have left their mark on the pronunciation and grammar of the Aryan and have contributed to his vocabulary.

The hypothesis has some plausibility. Still, it must not be forgotten that there may have been languages in northern India, which have by now completely disappeared. But to verify this will be extremely difficult; the chronological distance between the factors under comparison is enormous; indeed, the early state of the languages concerned is virtually unknown. In the Dravidian of the interior there are relatively archaic forms preserved by the literatures and others sufficiently divergent to provide the elements of a reconstruction. In Munda the languages, so far as they are known, to our ignorant eyes diverge either too much or too little. We have only modern documents and the nucleus, which has been sought in the Indo-chinese languages is still uncertain.

Let us try hovewer to summarise the present state of the question: Toponymy, which has provided such valuable data on the linguistic prehistory of Europe, has not yet been studied. But S. Levi

has shown that certain names of ancient peoples of northern India form couples in accordance with the system, which it has been agreed to call Austro-asiatic (the types Pulinda-Kulinda, Kosala-Tosala, Kalinga-Trilinga); According to Przyluski we should add to them Udambara in the Panjab and the Sātakarṇi dynasty of the Andhras (a Dravidian people? v. *Journ. As.* 1926, I, p. 25; *JRAS*, 1929, p. 273). From this point it could be inferred without difficulty that certain elements in the Sanskrit vocabulary are due to languages of the Munda group: Przyluski suggests among others (v. *Pre-aryan and Pre-dravidian in India*, trad, P. C. Bagchi) names of plants: betel *tāmbūla-*, banana *kadala-*. and already in the Ṛgveda that of the bamboo arrow *bāṇá-* replacing the Indo-european *iṣu-* and that of the plough *lāṅgala-* (*kṛṣ-* to till, *urvarā* and *sītā* furrow, are Indo-european; but *kīnāśa-* peasant, has also a foreign appearance).

On the other hand the vocabulary of classical Sanskrit contains elements unknown to Indo-european, but corresponding to expressions in Dravidian; one is even tempted to see loan-words in RV *ulúkhala-* mortar, AV *músala-* pestle; ŚBr. *sadanīrá* always (full of) water, the name of a river (the Gandak?) in the same way already attests *nīra-* water, which appears later as a separate word.

These comparisons and others more or less probable seem to prove exchanges between Aryan and other languages, but we have neither chronology or etymological criteria permitting us either to be sure that the linguistic groups in question are actually those we know, or to determine the path taken by the words; there are cases in which it is not known to which of two families (limiting them to two) the originals should be attributed or even in which direction borrowing has been made, for Aryan has, of course, encroached greatly upon the indigenous languages.

Two comments may, however, be made:

On the one hand, a superficial examination of the Santali vocabulary discloses an intimate and recent contact with certain forms of Hindi and above all with Bengali and Oriya. Inversely, it is also in Bengali, and in vulgar Bengali, that Messrs Chatterji and Bagchi look for new affinities between Munda and Aryan. It would seem then—provisionally—that the Aryan borrowings from Munda would have ceased during the intermediate period and were resumed in modern times in consequence of religious, administrative and economic contacts.

So far as concerns Dravidian, its most ancient form known, old Tamil literature, contains a good number of borrowings from

Sanskrit and middle Indian; in modern times the words taken by
Aryan from Dravidian appear to belong rather to the western
half (ex. *BSOS*, V, p. 742); on the other hand, certain words
which made their entry into Sanskrit have not been carried on
into the modern languages. This gives the impression that the
contacts might have taken place in the West, say in the Malva
country, rather than with the Andhras; was the glorious Ujjainī
the centre of the region in which these intellectual exchanges
occurred ?

However this may be, exchanges of vocabulary, even when
certain, have no other bearing on the problem before us than to
indicate possibilities. Let us utilise these possibilities and agree
that Munda and Dravidian may have been, at least in part, the
languages of populations, which found themselves bound to
adopt Aryan; it now remains to assess the effect upon Aryan
itself.

It is in the alterations of phonemes that we first expect to
discover the workings of populations which were to change their
language. And, in fact, there was one which has been of very
great importance, to such an extent as to transform the consonant
system. Indo-iranian has a series of dentals, understanding by
this the consonants articulated with the anterior part of the
tongue; the earliest Sanskrit has two of these, the dentals proper
and the cerebrals. This distinction is found again in Dravidian
and in Munda (except Sora). If we had to seek a choice between
these two sources, one would be tempted to make much of the
presence of *l̤* developed secondarily in Vedic from intervocalic
-*ḍ*- and in an important group of modern languages from inter-
vocalic -*l*-. Now, Dravidian has *l̤*, which is wanting in Munda.
On the other hand, the geographic distribution itself of *l̤* appears
significant: besides the western languages (except Sindhi, which
has in this instance *r*, also a cerebral) Oriya, an eastern dialect
contiguous to the Dravidian zone, has it. This lessens the value
of the fundamental hypothesis that Munda withdrawing to the
East, might have lost, like Indo-aryan, a phoneme, which it
anciently possessed.

As to the distinction between dentals and cerebrals we have
seen that it depends on the adaptation and crystallization of a
series of alterations due at first to the action of the prehistoric
Aryan *sh* sounds (chuintantes).

A characteristic of Indo-aryan phonology is the presence of

aspirated consonants. Now Munda or, at least, the Kherwari group of Munda (Sora does not have them) has aspirates; Dravidian has none.   In order to combine this with the preceding observation, we might turn to account the fact that Vedic -ḷ- has been replaced in classical Sanskrit by -ḍ-, and see in this a Munda influence succeeding a Dravidian: this latter influence would not have been sufficient to ruin the old system of aspirates before the Munda populations saved it; nothing, moreover, hinders us from acknowledging that Dravidian itself might have lost the aspirates, while extending over new territory in the Deccan, where the influence of indigenous peoples cannot be verified and in Baluchistan (where the only eastern dialect has recent aspirates).

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Above all we should remember that the position of aspirated consonants was not the same as that of dentals; the former are simply preserved, while the latter were in the beginning exposed to decay and so much the more prone to deviation.   Substrata produce effects only in favourable circumstances and this is why there is nothing in Aryan to suggest either the characteristic implosives of Munda (checked consonants) or the series of palatal consonants of Dravidian. The other influences, which it has been possible to detect are modern and all local: so are perhaps the diphthongization of the initials (y)e, (w)o in Marathi and in Telugu (as also in Nepali and Dardic), or the dentalisation of palatals before, a, o, u at once in Marathi, an Aryan language, in Telugu, and Kui, Dravidian languages, and in Kurku, an isolated Munda dialect; we should perhaps also compare the "vowel harmony" of Telugu and the "resultant sounds" of Santali and Bengali.

Besides these influences one instance of parallelism deserves to be mentioned, although its significance is not too clear.

Difficulty in pronouncing consonant-groups, characteristic of modern Indian, is found also in Dravidian.   The new name for "horse" appears in Sanskrit in the Śrautasūtra of Apastamba: ghoṭa-, which definitely replaces aśva-. This borrowing (from what language?) presupposes a type *ghuṭr-, which is still recognisable in the forms of two small Munda languages: Sora kurṭā, Gadaba kruṭā, presumably borrowed from Dravidian, to judge from the initial surd; even in Dravidian there is on the one hand Tamil kudirei, Kannaḍa kudure, and on the other Telugu gurramu ; thus there is, as in Aryan, vowel insertion or group assimilation. Similarly opposed to the closely related name for "ass", RV. gardabhá- we have on the one hand Ta. kaḷudei, Tel.

gādiḍe but Kan. *kaḷte, kaṭte;* cf. also Ta. *kuruḍ-* blind; Tel. *guḍḍ-*, Kan. *kuḍḍ-;* Tam. *kaḷalei* goitre, Tel. *gaḍḍa-* bulb, goitre, Kan. *gaḍḍe* lump, pimple (it may be remarked incidentally that the irregular opposition of surds and sonants suggests the existence of aspirated consonants in prehistoric Dravidian).

This convergence can hardly be due entirely to chance. But if there is parallelism, is there also synchronism?

Whatever be its date, the tendency seems to have become established in recent times, in Dravidian as well as in Aryan. One is tempted to find early evidence for it in the history of the proper name *Draviḍa-*, known to Epic and to Manu, which of course can only be a loan-word; now Peutinger's Tables (III cent.) gives *Dymirice*, the Pali Mahāvaṃsa (V cent.) *Damila-* and the oldest Tamil grammar *Tamiḷ*. But who can be certain that there is no intermediate middle Indian form?

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Tamil voices and on occasion makes fricative of intervocalic occlusives, but no connexion with middle Indian can be proved; Kumārila in the VIIth century still cites words with surds and moreover the change does not seem to be pan-Dravidian.

We have seen that Sanskrit admitted only long *e* and *o*, but that these vowels gradually acquired the short value also. Now, Dravidian and Munda have both short and long *e* and *o*. But this occurrence is too general and predictable to justify us drawing any conclusions, except that there was no local obstacle to prevent the normal shortening of old *e* and *o* in long words.

Of all these facts only those which concern cerebrals are indisputable. This is enough to warrant a search for other traces of substrata and in particular of a Dravidian substratum. For it is with Dravidian that Aryan has the most characteristics in common and these correspondences are all the more significant for being mainly secondary.

These are: in the word, the consistent use of suffixes and the absence (loss, in the case of Aryan) of prefixes and infixes, which are current in Munda; in the phrase, the absence (loss) of prepositions and of preverbs as such. In inflection, the absence (loss) of the dual number, current in Munda. In nouns there is the double stem, the oblique stem admitting of the force of a genitive and of being followed by words more or less emptied of their proper sense; and personal pronouns with two stems: that of the nominative and that of the direct and indirect object (a single stem in Munda).

In the verb are third persons in the form of nouns and varying in gender and absolutive (which is wanting in Munda),

playing an important part in the linking of sentences and in the creation of compound locutions for stylistic or grammatical purposes: Singh. *kiya*, Apa. *bhaṇivi*, Mar. *mhaṇūn*, Nep. *bhani*, Beng. *boliyā* agree with Ta. *eṉru*, Tel. *ani*, Kan. *endu* having said, in signifying an explanation; this agreement is true only the for southern Dravidian languages, Kurukh and Gond like Munda remaining outside (here again Sora stands separate from the

Munda group, v. R. V. Rāmamurti, § 179). A subject for speculation indeed, but also a justification of other comparisons in which the southern languages alone are concerned.

There are also negative facts: the absence of the passive, of the article, of the degrees of comparison. But while the previously cited facts do prove something, these prove nothing; the more so because we must take into account the preservation in Aryan of categories unknown to Dravidian and to Munda: on the one hand the relative and the relative sentence and on the other the adjective or noun in agreement with another noun; we may, however, wonder incidentally whether the presence of indeclinable stems in the indigenous languages functioning as adjectives has not had some effect on the future of compounds in the literary languages of Aryan. In any case there have been local developments: Marathi, Oriya and Singhalese have in different ways adapted the Dravidian relative participle to their syntax, an invariable adjective admitting a subject in the nominative in any construction.

As for other comparable expressions, for example doubled words and echo-words (p. 162) long lists could easily be made of these in all the families of Dravidian languages.

Remarkable and, in certain cases conclusive as these concordances may be, the evolution of Indo-aryan has not resulted in denaturalisation. We have only to note the convergences of Aryan with Iranian, in which the local differences which we have recognised are of a particular type; the loss of gender presupposes a substratum quite different from the Indian substratum.

The most salient of the differences between the two fields are, as we have seen, of a phonetic order. If the morphology of Iranian be considered, the fact that the noun has become invariable (this happens in certain languages of India) does not lend itself to comparison; but the category of adjective subsists; in pronouns, the generalisation of the oblique stem has its counterpart in India. The greatest difference in the system is that which is based on the absence of the old relative utilised as a suffixed adjective (the *iẓāfat* which has entered India through Urdu).

In the verb the opposition of the old present and the past participle dominates the conjugation, as in India; the annexation of pronominal forms and the part played by auxiliaries have also their counterparts in India.

On the other hand isoglossal lines reaching from one area to another show that their original connexion has not been essentially disturbed. To recall the most evident: the limits of the treatment of *ṛ* are not exactly those of the two groups: Afghani (partly) and Balochi make a short vowel of it, while the North-west group of the Asokan inscriptions bears witness to Indian dialects in which the treatment was "vowel+*r*".

Cerebrals are met with in Afghani and Waxi. The case of Afghani and Balochi could be considered as special; indeed, we know that these dialects were imported and that Indian civilisation penetrated their territories. Accordingly, the Balochi absolutive in *-to*, cf. Skt. *-tvā*, and the causative in *-av-* of Afghani, Waxi and Yidga are Indian borrowings. It may then be considered that an Indian substratum has been in operation in eastern Iranian; the Romany gipsies perhaps come from these regions and this would at the same time explain certain of their phonetic characteristics and similarities of vocabulary (e.g. Afghani and Romany *laśt*, Hin. *lāṭhī*, Skt. *yaṣṭi-*). To the same reasons may be ascribed the absence of the subjunctive and of the comparative in Afghani.

The distinction between *s* and *š* invades Indian territory; like the languages of north-western Asokan and the Dutr. de Rhins Ms in early times, Dardic and European Romany (Asiatic Romany goes with the rest of India) have kept the old *sh* sounds (chuintantes); and in Kashmiri the sibilant dominates the following occlusive (p. 82, cf. p. 88) according to a formula which has analogies in Iranian; in Kashmiri and Sindhi *ś* becomes *h*, *šy* becomes *s* and *šp* becomes *š* as in Iranian. Afghan *atə* eight, presumes an aspirated consonant like the Indian; but it should be noted that *st* survives.

Kafiri is fond of dentalising palatals: a characteristic of Iranian from ancient times.

The inscriptions of the Kuchan epoch in Kharoṣṭhi script seem to bear witness to the existence of Indian fricatives at an early date, v. p. 63; Dardic provides them to-day. On the other hand the de-aspiration of voiced aspirated consonants which is sporadic in the rest of India, is normal in Dardic and in Panjabi as in Iran (aspiration leaving a trace in the vowel-tone of Panjabi). Incidentally we may recall that eastern Balochi has aspirated consonants of recent origin.

Certain treatments are found on both sides of the frontier without becoming generalised in either of the two areas; so that of *sv* which gives *s* in Persian and in the Prakritic dialects of India independently, but *sp* in the remainder of Iran and in the old western dialects of India (Asokan *spasu- (svasṛ-)*, Dutr. de Rhins *viśpa- (viśva-)*, inscr. *Vespasiri, Pispasiri*).

In modern times initial *v-*, which became *b-* in Persian, survives in the rest of Iran; it has also survived in western India, while it became *b-* more to the East. In the intermediate period the
p. 330 treatment *-l-* from intervocalic *-d-* is common in parts of Northeast Iranian and of North-west Indian, to which Romany is added here.

In the morphology it may be remarked that the relative *ya-*, which was preserved and which assumed great importance in India, is wanting in the North-west and in Romany, as in Iran. The use of pronominal suffixes in the verb is localised in India in the direction of the Iranian border; on the other hand the Iranian languages on the Indian border have no longer a subjunctive. Afghani, Balochi and the central dialects have a noun system with two stems; Persian and Kurdish have one form only. This difference depending, as it may, upon the relative rapidity of their evolution is naturally less significant than those previously mentioned.

It is consequently right to attribute some signification to details of vocabulary. The equivalent of Skt. *strī*, still current in Dardic, has a corresponding word *šəja* in Afghani and to *mukha-* correspond the Afghan. *max*, Paraĉi *mux* (v. Morgenstierne, *Etym. voc. of Pašto*, p. 48). Tedesco has rediscovered the equivalent of Sind. *rījh-* to have pleasure, in Sogdian and has noticed the semantic agreement between Sind. *vījh-* to throw (Skt. *vyadh-* to pierce) *kuh-* to kill (Skt. *kuṣ-* to tear, gnaw) and old Iranian (*BSL*, XXIII, p. 114); similarly Turner has pointed out that Sind. *vaṇ*ᵘ like Afghan *wana* means "tree", a meaning lost by Skt. *vana-* after the Vedas. The oldest grammarians were already noticing the presence of *šav-* to go, in Kamboja, cf. old Pers. *šiyav-*, Avest. *šyav-*, Sogd. *śav-* (in Sanskrit the same root has the form *cyav-* and another meaning). There are certainly other similar parallels and no doubt they partly explain the renewal of the Sanskrit vocabulary at the moment of its extension to the East and South. But the difficulty is to distinguish them from the borrowings which certainly took place during every period. Already Vedic *dvār-*, where one would expect an initial aspirated consonant, is perhaps, as Hertel has suggested, an Iranian word. History

has indeed helped to maintain a permanent contact between the two civilisations; the borrowings to which allusion has just been made have been facilitated by the fact that the words remained phonologically quite close to one another in the two areas. And surely some of our etymologies, which do not take into account, the easiness of transpositions though correct, are historically false.

Therefore, profound as the local influences may have been, they have not driven the Aryan of India actually to separate itself from the Aryan of Iran or to become greatly differentiated from other Indo-european languages; the inner strength of Indo-iranian, the prestige of Sanskrit, the historic ties with the West and the influence of Persian have all operated in the same direction. No doubt the influence of English, not only on the vocabulary, but on the syntax, will on the whole contribute to bind still closer the links between the cultivated languages of India and the Indo-european group.

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